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FIRST ANNUAL REPORT
OF THE
MINIMUM WAGE COMMISSION
OF
MASSACHUSETTS.

FOR THE SIX MONTHS ENDING DECEMBER 31, 1913.



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CONTENTS.

	PAGE
MEMBERS OF THE COMMISSION,	4
REPORT OF THE COMMISSION:—	
Survey of Minimum Wage Legislation,	5
Activities of the Present Commission,	8
Recommendations,	12
REPORT OF THE SECRETARY:—	
Wages of Women in the Brush Factories of Massachusetts,	18
Wages of Women in the Corset Factories of Massachusetts,	37
Financial Statement,	60
APPENDIX No. 1:—	
Act to establish a Minimum Wage Commission,	63
APPENDIX No. 2:—	
Rules of Procedure of the Brush Makers' Wage Board,	67
APPENDIX No. 3:—	
Main Provisions of Minimum Wage Laws in the United States,	Folder

MEMBERS OF THE COMMISSION.

H. LARUE BROWN, *Chairman.*

ARTHUR N. HOLCOMBE.

MABEL GILLESPIE.

AMY HEWES, *Secretary.*

The Commonwealth of Massachusetts.

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Massachusetts Minimum Wage Commission herewith respectfully submits the following report, covering the period from July 1, 1913, when the commission took up its duties, to Jan. 1, 1914. To it is appended the report of the secretary, summarizing the work carried on during that period, and containing an analysis of the results obtained, together with other information regarding the work of the commission.

SURVEY OF MINIMUM WAGE LEGISLATION.

Minimum Wage in Other Countries.

Systems of minimum wage legislation have been in operation in New Zealand since 1894, in Victoria, Australia, since 1896, followed by the inauguration of somewhat similar systems in the other Australian States and in the Australian Commonwealth, and in Great Britain since January, 1910. Australasian legislation has in general followed one of two types. According to the Victorian system, minimum wages are established in specific occupations or industries through conferences known as wages boards, which consist of equal numbers of employers and employees, presided over by an impartial chairman. The determinations of the boards are reported in the government "Gazette," and the wages fixed by the board become at once legally binding. The second method, which is in operation in New Zealand, is that of establishing minimum wages through compulsory arbitration

courts. Compulsory arbitration, at first considered merely as a means for the peaceful settlement of industrial disputes, has become a mechanism for establishing minimum wages through the necessity under which the courts have found themselves of specifying minimum rates in the course of determining the conditions under which employment in the given industry or occupation shall continue. In practice, the operation of the conciliation or arbitration courts with regard to minimum wages has been very similar to that of the wages boards of the Victorian system.

In England the determinations are made by boards known as trade boards, composed of equal numbers of employers and employees, with a chairman and other members appointed by the Board of Trade. The determinations of the trade boards are made binding by order of the Board of Trade. The act at first applied to the four trades of tailoring, box-making, lace-making and chain-making. It has since been extended to cover several other occupations. As in Australasia, the rates of wages fixed apply to both men and women in the occupations in question.

Minimum Wage in Massachusetts.

Successful as the application of the minimum wage principle had appeared to be in other countries it was not until 1911 that agitation for an application of the principle in this country took public form in Massachusetts. In that year representatives of several groups of persons who were interested in social and industrial questions within the State presented to the Legislature a petition asking for an investigation with reference to the desirability of attempting minimum wage legislation in this State. As a result of their efforts a resolve was passed providing for the appointment of an investigating commission "to study the matter of wages of women and minors, and to report on the advisability of establishing a board or boards to which shall be referred inquiries as to the need and feasibility of fixing minimum rates of wages for women and minors in any industry."¹ The commission appointed in pursuance of the

¹ Chapter 71, Resolves of 1911.

resolve was known as the Commission on Minimum Wage Boards, and consisted of five members: Henry Lefavour, chairman, Richard Olney, 2d, John Golden, Elizabeth G. Evans and George W. Anderson. Under the direction of Miss Mary W. Dewson as secretary, an investigation was made into the condition of employees in confectionery factories, retail stores and laundries. With reference to an analysis of the results obtained, the commission made the following general statement: —

A large number of women of eighteen years of age and upward are employed at very low wages; it is indisputable that a great part of them are receiving compensation that is inadequate to meet the necessary cost of living.¹

In order to remedy the state of affairs revealed in the course of its investigations, the commission recommended that a permanent commission of three members be appointed, to be known as the Minimum Wage Commission, which should inquire into the wages paid to the female employees in any occupation in the Commonwealth, if the commission should have reason to believe that the wages paid to a substantial number of employees are inadequate to supply the necessary cost of living and to maintain the worker in health. If, after such investigation, the commission should still be of the opinion that the wages paid fail to meet the demands specified, the commission should then establish a wage board composed of six representatives of the employers and six representatives of the employees, with a number of disinterested members to represent the public. The wage determinations agreed upon by the board, if approved by the commission, should be declared the minimum wages for the occupation.

The Legislature of 1912, having received the report of the preliminary commission, passed an act (chapter 706, Acts of 1912)² embodying in general the recommendations made, but substituting publicity for the penalty for failure to pay the rates determined. The present commission was appointed

¹ House No. 1697, report of the Commission on Minimum Wage Boards, p. 12.

² Appendix No. 1.

under the terms of the act, which took effect upon the first day of July, 1913.

In the legislative session of 1913, eight States followed the example of Massachusetts in passing minimum wage laws. Seven of these States — California, Colorado, Minnesota, Nebraska, Oregon, Washington and Wisconsin — provided for commissions to deal with the matter of establishing minimum wage rates, while one, Utah, prescribed a minimum wage for women and minors by statute. Investigating commissions have been at work upon the matter in Michigan, New York and Connecticut. Laws providing for the determination of minimum rates were introduced into the Legislature of several other States, but failed of passage.

With respect to the establishment of minimum wages, the provisions of the acts of the various States, with the exception of Utah, are in general substantially the same. A preliminary investigation of wages in the occupations in question is usually required, and if wages are ascertained to be unsatisfactory, the commission is authorized to appoint a wage or advisory board which becomes responsible for the fixing of the rates of wages. In Nebraska, as in this State, the commission is empowered to publish in the newspapers of the State the names of employers who refuse to pay the rates of wages determined upon. In the remaining States a refusal to comply with the order regarding rates of wages constitutes a misdemeanor. Three States — California, Oregon and Washington — in each of which the commission is known as the Industrial Welfare Commission, have extended the powers of those bodies beyond the mere determination of minimum wages. In Washington the commission may also regulate conditions of labor, and in California and Oregon both maximum hours and conditions of labor may be determined.

ACTIVITIES OF THE PRESENT COMMISSION.

The Massachusetts statute imposes upon the commission the duty to inquire into the wages paid to female employees in the Commonwealth, and to form an opinion as to whether the wages paid to a substantial number in any occupation

are adequate to meet the necessary cost of living and to maintain the worker in health. If, after such investigation, wages are found to be inadequate, it becomes the further duty of the commission to appoint a wage board which shall determine the appropriate minimum rates, and report such determinations to the commission. If the commission approves, the rates are established as the minimum rates for the industry.

During the six months of the commission's activity, from July 1, 1913, to Jan. 1, 1914, investigations have been made into the wages of women employees in three industries — the brush industry, the corset industry and the confectionery industry¹ — and have been begun in other industries. The industries were chosen on account of the large proportion of women workers among the employees and the low level of wages indicated by such available material as the reports of the Bureau of Statistics, especially "Statistics of Manufactures, 1911," and various other special reports. In the case of brushes and corsets, a study was made of every establishment within the State which employs women, in so far as the names and locations of such establishments could be ascertained.

The commission has held it of first importance to inform itself to the fullest possible extent regarding the elements of the labor contract, — the wages paid and the corresponding occupations and hours. A transcript of the pay roll for the past fifty-two weeks for all female employees was taken by agents of the commission. Where the earnings are determined by piece rates, a schedule of such rates for the various occupations in each establishment was secured. Books were defective or in such condition that only partial records were obtainable in a small number of cases, but on the whole the pay rolls appeared to be accurately kept. In all, wage records for the fifty-two weeks preceding the investigation were taken for 6,926 women employees, 837 of these for brush workers, 2,388 for women employed in the corset factories and 3,701 for women at work on candy. For a

¹ The analysis of the data concerning the confectionery industry has not yet been compiled; consequently, the results are not available for the present report.

large number of these, personal data regarding age, birth-place, family and living conditions were also obtained. In addition, a careful study was made of each process in which women are engaged, whether performed by hand or machine.

According to an analysis of the results for the separate industries, a considerable number of women workers are receiving a wage which is inadequate to supply them with the necessities of life. Almost exactly two-thirds of the brush workers for whom wage records were available received an average for the year of less than \$6 a week. A smaller proportion of corset workers, 35.5 per cent., receive less than \$6 a week. The sum named is lower than the minimum amounts usually named as necessary to maintain a normal, healthy existence for women workers.

In connection with these statements, however, the failure of many employers to keep records of the number of hours worked must be taken into consideration. In both the brush and corset industries, records of hours worked were available for only a small proportion of the employees, and in many cases for only a few weeks immediately preceding the investigation. The statement is made by certain manufacturers that not only do a large number of the employees work for only part time, but also that failure to work for full time is due, not to lack of work in the factory, but to choice on the part of the workers. Consequently, the amount received at the end of the week is frequently smaller than the sum which the workers might have earned had they been employed for full time. The work of the commission has been handicapped to some extent by this defect in the records, since the average earnings and the length of the average week could be related in so small a proportion of cases. Fortunately, such difficulties will be lessened after the present year, owing to the passage of the law requiring employers of labor in manufacturing and mercantile establishments to keep time books showing the number of hours worked by all employees each day.¹

With very few exceptions, the manufacturers have shown the fullest co-operation, and have facilitated in every way

¹ Chapter 619, Acts of 1913.

the work of the commission and its agents. The commission wishes to make acknowledgment of the many courtesies which have been extended by manufacturers and their representatives.

It has been the endeavor of the commission to carry on its study with the least possible disturbance to the industries, consistent with its purpose to inform itself thoroughly as to the facts of the wage situation.

In order to carry out its duties adequately, in fulfilment of the spirit of the act, the commission has found it necessary to gain a thorough acquaintance with the points of view of both manufacturers and workers. Conferences have therefore been held with representative manufacturers before undertaking the study of wages in detail, and from them have been obtained much valuable information upon the state of the industry, the effect of the tariff, the nature and extent of interstate competition and local problems. Conferences were also held with the workers, who were of great assistance in making plain the particular and general conditions surrounding the women wage earners in the industry.

At the conclusion of its study of brush-making, the commission was of the opinion that the wages paid to a substantial number of the female employees were inadequate to supply the necessary cost of living and maintain the worker in health, and voted to establish a wage board for the industry.

It was the policy of the commission to appoint the members of the wage board in such a way that it might be as widely representative as possible. To this end, every manufacturer in the State was asked to make nominations. Nominations were also called for from the workers, and an effort was made to secure representatives from the different groups and nationalities among them. The invitations to make nominations were responded to in two cases by the manufacturers, in each of which appointments followed, and in three cases by the workers, as a result of which two appointments were made. Although the manufacturers failed to make a sufficient number of nominations to constitute their representation, they were, nevertheless (with

a single exception), ready to accept appointment. The workers were likewise willing to serve, but some of them labored under a serious handicap in their apprehension that their activities upon the board might affect the tenure of their positions. The commission is glad to say that in the main this apprehension has proved without foundation. Aside from the protection afforded by the statute itself, the co-operation on the part of employers, which has been mentioned in connection with the gathering of information, has been conspicuous here also. That there should have been one apparent exception is not surprising, though regrettable. That there should have been only one, is a tribute to the good sense and public spirit of the employers in this industry, and is matter for congratulation. In the one instance mentioned two workers who were appointed to the wage board were "laid off" immediately after their appointment. This apparent defiance of the letter and spirit of the statute is now receiving the attention of the commission.

The Brush Makers' Wage Board is at present taking into consideration the needs of the employees and the financial condition of the industry, making use of the information submitted by the commission, with a view to determining the appropriate minimum rates.

In one of the industries already investigated the factor of prison labor with a degree of potential competition exists as an element in the situation. It is a matter for consideration whether existing statutes have sufficient regard for the complicating effect of such labor upon wages, and especially upon the minimum wage for women and minors.

RECOMMENDATIONS.

It has become evident in the light of experience that additional legislation is required in order to increase the efficiency of existing statutes. Certain industries in which it may become advisable to call a wage board embrace only a small number of establishments. In some of these, adequate representation of both employees and employers may be secured by a smaller membership than the minimum prescribed, for which reason it is recommended that the

number in each case be left to the discretion of the commission. In the interest of economy it is recommended that the commission be not required to publish its findings and recommendations in every county of the Commonwealth, regardless of the location of the industries, but that the same discretion be allowed as in the case of the facts as to the acceptance of its recommendations. The investigations already made revealed a few instances of the lack of wage records in any reliable form. Accurate records are necessary for the execution of the law and should be required. Lastly, it is important to remove as far as possible all fear and apprehension from the workers in the activities which may be required of them.

The commission therefore recommends the following measure: —

AN ACT RELATIVE TO THE DETERMINATION OF MINIMUM WAGES FOR
WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. Section four of chapter seven hundred and six of the acts of the year nineteen hundred and twelve is hereby amended by striking out all after the words "consisting of", in the sixth line, and inserting in place thereof the following: — an equal number of representatives of employers in the occupation in question and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public, but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall have absolute and final power in determining who shall be members of any wage board and may fill any vacancy in the membership of any wage board at any time occurring. In selecting the members to represent the female employees in any occupation, the commission shall, so far as it deems practicable, ascertain what persons are desired by said female employees as the representatives of said female employees on said board; and similarly in its selection of members to represent the employers it shall so far as it deems practicable ascertain what persons are desired by said employers as their representatives. The commission shall designate the chairman from among the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determinations of the boards. The members of wage boards

shall be compensated at the same rate as jurors; they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission, — so as to read as follows: — *Section 4.* If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of an equal number of representatives of employers in the occupation in question and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public, but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall have absolute and final power in determining who shall be members of any wage board and may fill any vacancy in the membership of any wage board at any time occurring. In selecting the members to represent the female employees in any occupation, the commission shall, so far as it deems practicable, ascertain what persons are desired by said female employees as the representatives of said female employees on said board; and similarly in its selection of members to represent the employers it shall so far as it deems practicable ascertain what persons are desired by said employers as their representatives. The commission shall designate the chairman from among the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determinations of the boards. The members of wage boards shall be compensated at the same rate as jurors; they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission.

SECTION 2. Section six of said chapter seven hundred and six, as amended by section two of chapter six hundred and seventy-three of the acts of the year nineteen hundred and thirteen, is hereby further amended by striking out the word “shall”, in the fifteenth line, and inserting in place thereof the word: — may, — and by striking out the words “in at least one newspaper in each county of the commonwealth”, in the fifteenth and sixteenth lines, and inserting in place thereof the words: — at such times and in such manner as it may deem advisable, — so as to read as follows: — *Section 6.* Upon receipt of a report from a wage board, the commission shall review the same, and may approve any or all of the determinations recommended, or may disapprove any or all of them, or may recommit the subject to the same or to a new wage board. If the commission approves any or all of the determi-

nations of the wage board it shall, after not less than fourteen days' notice to employers paying a wage less than the minimum wage approved, give a public hearing to such employers, and if, after such public hearing, the commission finally approves the determination, it shall enter a decree of its findings and note thereon the names of employers, so far as they may be known to the commission, who fail or refuse to accept such minimum wage and to agree to abide by it. The commission may thereafter publish at such times and in such manner as it may deem advisable a summary of its findings and of its recommendations. It shall also at such times and in such manner as it shall deem advisable publish the facts, as it may find them to be, as to the acceptance of its recommendations by the employers engaged in the industry to which any of its recommendations relate, and may publish the names of employers whom it finds to be following or refusing to follow such recommendations. An employer who files a declaration under oath in the supreme judicial court or the superior court to the effect that compliance with the recommendation of the commission would render it impossible for him to conduct his business at a reasonable profit shall be entitled to a review of said recommendation by the court under the rules of equity procedure. The burden of proving the averments of said declaration shall be upon the complainant. If, after such review, the court shall find the averments of the declaration to be sustained, it may issue an order restraining the commission from publishing the name of the complainant as one who refuses to comply with the recommendations of the commission. But such review, or any order issued by the court thereupon, shall not be an adjudication affecting the commission as to any employer other than the complainant, and shall in no way affect the right of the commission to publish the names of those employers who do comply with its recommendations. The type in which the employers' names shall be printed shall not be smaller than that in which the news matter of the paper is printed. The publication shall be attested by the signature of at least a majority of the commission.

SECTION 3. Section seven of said chapter seven hundred and six is hereby repealed.

SECTION 4. Section eleven of said chapter seven hundred and six, as amended by section one of chapter three hundred and thirty of the acts of the year nineteen hundred and thirteen, is hereby further amended by inserting after the word "keep," in the second line, the words: — in such form as may be prescribed by the commission, — and by inserting after the word "him", in the fourth line, the words: — together with a record of the amount paid each week to each woman and minor, — so as to read as follows: — *Section 11.* Every employer of women and minors shall keep in such form as may be prescribed by the commission, a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the

amount paid each week to each woman and minor, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 5. Section thirteen of said chapter seven hundred and six, as amended by section three of chapter six hundred and seventy-three of the acts of the year nineteen hundred and thirteen, is hereby further amended by striking out the words "or because the employer believes that the employee may testify", in the fourth and fifth lines, and inserting in place thereof the words:— or has served or is about to serve upon a wage board, or has given or is about to give information concerning the conditions of such employee's employment, or because the employer believes the employee may testify, or may serve upon a wage board, or may give information concerning the conditions of the employee's employment,— so as to read as follows:— *Section 13.* Any employer who discharges or in any other manner discriminates against any employee because such employee has testified, or is about to testify, or has served or is about to serve upon a wage board, or has given or is about to give information concerning the conditions of such employee's employment, or because the employer believes that the employee may testify, or may serve upon a wage board, or may give information concerning the conditions of the employee's employment, in any investigation or proceeding relative to the enforcement of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than two hundred dollars, and not more than one thousand dollars for each offence.

SECTION 6. This act shall take effect upon its passage.

Necessity for an Increased Appropriation.

The commission is asking for an appropriation of \$32,500. At the time when the appropriation to cover the work for the first five months of its activity was made there existed no data upon which a detailed estimate could be based, and the sum of \$7,000 then appropriated was little more than a guess at the requirements. By the exercise of rigid economy the commission has been able to initiate its work, keeping within the amount fixed. This would scarcely have been

possible, except for the fact that the heavy expenses attending the meetings of the wage boards have not yet been encountered. The first board is now in session and others are to be established in the near future. The field of the activity of the commission must expand in the coming year if its duties are to be adequately performed. The industries chosen for the initial investigations are small and centrally located. Industries employing many thousands of women and minors must be studied in the coming year. These are scattered throughout the Commonwealth. In addition to the gathering of a large amount of data concerning wages, the statute imposes upon the commission the obligation of ascertaining whether employers in each occupation are paying the minimum rates after they have been established. This necessitates a re-examination of the pay rolls and further proceeding in accordance with the findings thereof. In order to fulfil these requirements the commission must increase the number of agents and must incur various incidental expenses.

The detailed estimates, which comprise the total asked for, are based upon five months' experience, and relate to the carrying out of carefully made plans. It is the opinion of the commission that the sum indicated represents the minimum upon which efficient service can be rendered to the Commonwealth.

Respectfully submitted,

H. LARUE BROWN,
MABEL GILLESPIE,
ARTHUR N. HOLCOMBE,

Minimum Wage Commission.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following report of the investigations into the wages of women workers in the brush and corset factories of this Commonwealth.

WAGES OF WOMEN IN THE BRUSH FACTORIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The use of brushes is a part of the daily routine of practically every one. For health, comfort or adornment, for the performance of household tasks, for the operation and care of machinery, and for hundreds of other uses in connection with production, brushes have long been indispensable. In spite of their universal use, however, the manufacture has received practically no attention in the various studies of different industries which have been made in this country. This may be due to the fact that in respect to the number of persons employed it is rated as one of the smallest industries in the United States. According to the thirteenth census only 8,258 persons are engaged in the whole industry.¹

Massachusetts holds a prominent place in the industry. At the time of the taking of the last census, 1909, New York alone ranked higher in the amount of capital invested and the number of persons employed. With regard to capital invested, the 113 brush establishments in New York, capitalized at \$2,525,103, ranked ahead of the 30 in Massachusetts by only \$288,764. The number of persons engaged in the industry in Massachusetts was 1,810, or 412 less than the total number employed in New York.

The manufacture is widely scattered over the United States and is characterized by small establishments. In Massachusetts the average number of workers to a factory is only 60.

¹ United States, thirteenth census, Vol. VIII., p. 666.

In the present study, made in August and September, 1913, 32 establishments engaged in the manufacture of brushes were found in the State. From these, wage records were secured for 837 women. These represent the total number of women on the pay rolls of the establishments at that time.

The following groups were not included in the tabulation: —

1. Workers who were employed less than four weeks during the year.
2. Those who worked at their homes.
3. Those working in the factories, but paid by subcontractors and not by the factory directly.
4. Those for whom the factory records were defective or incomplete.

In all, these four groups represented 240 persons, leaving 597 which are included in the following tables.

Besides the wages paid, additional information was secured for 484 persons. This covers data for age, nativity, marital conditions, living arrangements and industrial history. In most cases this information was given very willingly, in others it was not forthcoming.

Statistics of Manufacture (Brushes).

	CENSUS RETURNS ¹ FOR 1909.		Statistics of Manu- factures for 1911, Massachu- setts.
	United States.	Massachu- setts.	
1. Number of establishments,	384	30	25
2. Capital,	\$11,091,796	\$2,236,339	\$2,349,422
3. Value of products,	\$14,694,003	\$2,874,524	\$2,988,938
4. Value added by manufacture (product less cost of materials),	\$7,507,066	\$1,518,724	\$1,426,093
5. Cost of materials used, including fuel and rent of power,	\$7,186,937	\$1,355,800	\$1,562,845
6. Expense (rent, tax, contract, other),	\$1,421,148	\$349,917	— ²
7. Salaries,	\$1,046,733	\$210,485	— ²
8. Wages,	\$3,041,145	\$652,796	\$661,702
9. Total cost,	\$12,695,963	\$2,568,998	— ²
10. Profit,	\$1,999,040	\$305,526	— ²
11. Employees: —			
Number of salaried officials and clerks,	914	152	— ²
Average number of wage earners employed during the year,	6,954	1,629	1,516
Male, sixteen years of age and over, December 15,	4,597	679	510 ³
Female, sixteen years of age and over, Decem- ber 15,	2,596	1,051	825 ³
Female, under sixteen years of age, December 15,	127	25	181 ⁴

¹ United States, thirteenth census, Vol. VIII., p. 518 ff.

² Not taken by the Massachusetts Bureau of Statistics.

³ This is the number of employees, eighteen years of age and over, December 16.

⁴ This is the number of employees under eighteen years of age, December 16.

Manufacture of Brushes by States.¹

STATE.	Number of Estab- lishments.	Number engaged in Industry.	Capital.	Value of Product.
California,	8	22	\$20,655	\$35,508
Colorado,	4	10	14,595	19,160
Connecticut,	12	157	106,907	210,496
Georgia,	3	15	11,230	19,339
Illinois,	32	392	497,181	964,850
Maine,	4	30	40,950	46,462
Maryland,	11	575	1,528,204	1,123,515
Massachusetts,	30	1,810	2,236,339	2,874,524
Michigan,	14	260	329,694	351,095
Missouri,	11	63	69,770	140,474
New Jersey,	25	968	1,380,089	1,563,951
New York,	113	2,222	2,525,103	4,075,839
Ohio,	22	549	766,332	1,219,461
Pennsylvania,	55	541	823,070	1,042,312
Rhode Island,	9	156	123,940	202,634
Wisconsin,	14	197	242,906	249,487
All other States,	17	—	—	—
Total in United States,	384	—	—	—

¹ United States, thirteenth census, Vol. VIII., p. 666. Figures given are for 1909.

THE OCCUPATIONS.

Bristles, the materials with which the brush manufacturer is most concerned, are imported mainly from Russia and China, and in small amounts from central Europe. Our own country is practically a negligible factor in the bristle market, for the bristles of improved hogs are greatly inferior to those of wild breeds. Tampico, a vegetable fiber from Mexico, is often used as a substitute for bristles. It is much cheaper, but, like all the other substitutes in use, is decidedly inferior in quality. Horsehair is combined with bristles in many of the cheaper-grade brushes. Various kinds of animal hair, such as red sable hair, squirrel hair (known as camel hair) and badger hair are in use for artists' brushes, and ox hair, bear hair and skunk or "fitch" hair are used for varnish brushes. Even in artists' brushes, however, bristles are in most common use.

In general, the processes employing women make light work requiring dexterity rather than taxing the strength. The occupations differ according to the grade of brush and the methods of production in different establishments. Those most common in order of the numbers employed in each are: brush-making, finishing, setting, nailing, cementing, packing and shipping, drawing, soldering, miscellaneous machine processes, hammering.

Those employing a smaller number of persons are: stamping, handling, *i.e.*, putting on handles, plugging, assembling, boring, stock work, rimming, inspecting, serrating, stapling, pegging.

The introductory processes in brush-making are usually performed outside the factory or by men inside. Wooden handles and bases are in most cases bought ready made. The bristles and fibers are cleaned and sorted by men, and the metal ferules are prepared by them also. Brush-making was a household industry a century ago, and the trade remains to-day, to a large extent, a handicraft. The historic processes connected with the making of brushes are the hand processes of drawing and setting. These processes have been supplemented to a considerable degree in large factories, but are still almost universally used to some extent, and are the principal operations in all except the largest factories.

Drawing. — The back of the brush, with holes already bored through it, is held in a small vise in such a position that the worker, seated before her table, can easily work upon it with wire and bristles necessary for the process. The worker passes a loop of very fine copper or brass wire through one of the holes from the back, and inserts in this loop the proper number of bristles to fill the hole, selected from a pile at her side. She then draws the wire tight, pulling the bristles into the hole and bending them double. They are not drawn all of the way through the hole, but are wedged tightly in place. The process of pulling the wire tight requires something of a jerk, and the operative keeps her hand wrapped with layers of thick cloth to prevent its being cut. A loop of the same length of wire is then inserted in the next hole and the process is repeated until all

the holes in the back of the brush are filled with bristles. The bristles are later trimmed and the back of the brush is covered with wood or metal. The workers almost invariably sit at tables or benches to perform this process. The work is monotonous, but simple and fairly clean, and requires little physical exertion except the slight pull at the instant of filling the hole with bristles.

Machine Drawing. — Machine drawing was less often found in the course of this study. The process is as follows: the back, which is to be filled with bristles, is clamped in a wooden vise, held just above the operative's lap. A fine brass wire runs through a steel needle approximately 10 inches in length. This needle is used to pass the wire rapidly through the hole to receive the bunch of bristles. This part of the process is done by hand. Directly in front of the operative is a small machine at the back of which bristles are fed in automatically at the pressure of a trip by the operative's foot. The proper amount of bristles to fill the hole in the back is passed forward along the edge of a disc and held in place until she takes them out by hand. This machine does two things: it measures correctly the amount of bristles and it marks clearly the center of the bristles so that the operative passes her wire around this point instead of having to stop and measure the center. It insures small wastage in trimming. Pay is so much per hundred holes. It is estimated that a period of three to five months is needed to develop average skill, and a woman's maximum is not often reached in less than a year's time. Usually the learner is paid time wages the first few weeks. During this period she is apt to waste so much material that she often occasions actual loss to the firm.

Setting. — In this process, as commonly found as drawing in the older and smaller establishments, the bristles are fastened with pitch instead of wire. It is performed as follows: the worker is seated at a table in the center of which is a pot of hot pitch, considerably below the boiling point. The pitch is usually heated by pipes passed through the center of the receptacle. The worker holds a handful of bristles in her left hand, and from this selects the right

number to fill the hole in the back of the brush. In this apparently unimportant selection lies a large part of the skill of the trained worker, for if too many or too few are taken and dipped in the pitch they do not fit, and must be thrown aside to go through the cleaning process again from the beginning if they are to be used. Having selected her bristles the worker dips one end of them into the hot pitch, then takes a piece of twine which she runs across the ends of the bristles through the pitch, makes a few turns around the bristles, and then runs the twine back across the end of the pitch to hold it firmly. This end of the bunch of bristles is then redipped in the pitch and inserted in the hole with a dexterous twist which spreads the pitch evenly throughout the hole.

The two processes just described are usual in the making of such brushes as scrubbing, floor and toilet brushes, that is, "compound" brushes, or those having more than one cluster of bristles or fibers. In the case of "simple" brushes — those with one round or oval opening — the processes are usually included in the group known as "brush-making."

Brush-making. — This term applies to the various processes of inserting and fastening the bristles in paint and similar brushes. The first of these is weighing the bristles into the appropriate amounts for each brush. They are then inserted in the round or oval shaped metal ferule, and the ferule is pounded down and flattened in order to hold the bristles securely until they can be cemented. A different method is employed with the wide, flat brushes such as are used for whitewashing. With these the bristles are evenly distributed in the ferule which protrudes over the edge of the wooden handle. A thin piece of steel is passed down exactly through the center, cutting them longitudinally. When the bristles are so separated a wooden plug is inserted. This plug is beveled so that it can be driven in and hold the bristles firmly.

Cementing. — Cement is poured into the open end of the ferule over the top end of the bristles from a small dropper, or it is driven in from a machine operated by compressed air.

Nailing. — Before the cement has hardened the handle is nailed into the ferule with a power-driven machine.

Hammering. — The nails are left with rough ends by the machine and must be pounded down on both sides of the brush.

Stamping. — Many firms stamp brushes with their names or trade marks. Stamping is done by hammering the die into the wooden handle.

Soldering. — Where parts are to be soldered the worker is seated at a bench upon which a Bunsen flame is burning; a small rack holds the soldering iron in the flame. The parts are smeared with a substance to make the solder hold, held by the pincers and a drop of solder is placed upon them. The odor and heat are unpleasant in hot weather. Operators keep their fingers wrapped with thick cloths to prevent burning.

Finishing. — The brushes are now ready to be varnished, either by hand with a brush, — a process which requires a moderate degree of skill, — or by being placed in a rack which is dipped in varnish or shellac. When dry, the brushes are inspected, wrapped, tied and are ready for shipment.

SUBCONTRACTING.

In two factories the agents of the commission found it necessary to deal with the rather difficult problem of subcontracting within the establishments. In these factories special rooms or portions of rooms are given over to the contractors, who are paid at standard rates for their output. The contractor is then free to engage his own labor at whatever price he considers advisable, and to vary the number of his workers according to the necessities of the work. He pays his workers out of the sum allotted to him, without supervision from the main office, and without recording in the office the amounts paid.

It was of course impossible for the agents to obtain any satisfactory wage data for the workers who were under this system when the study was made, except to obtain from the contractors the numbers and names of the women employed, with a statement of their weekly rates of pay, and to take a record of the number of hours worked, whenever

such records had been kept in the factory office. The rates named by the contractors were usually higher than the prevailing rates in the two factories in which the subcontract slips were found. The actual sums received by the workers each week are, however, as has been previously noted, not a matter of record, and the manufacturers themselves professed ignorance of them. Apparently an effort is made by the contractors to prevent the rates becoming known, possibly because dissatisfaction among regular workers in the same factory might arise, or because too strong a light might be thrown upon their own rates of profit. In short, the ordinary evils of subcontracting exist potentially in every shop of this kind where rates are precluded from direct supervision from the factory office.

THE WAGE SITUATION.

The level of the wages in the several occupations in the manufacture of brushes is shown in Table I. (a). Almost exactly two-thirds of the whole number of women in the industry have average weekly earnings of less than \$6. This proportion is the same as that calculated from the classified weekly wages given by the last report of the Statistics of Manufactures (1911), page 95. In the latter case, in which the figures were furnished to the Bureau of Statistics by the manufacturers themselves for the week ending December 16, just 66 per cent. of the women over eighteen years of age earned under \$6.

According to the same report no industry in the State other than brushes has as high a per cent. of its female employees earning less than \$6 per week, and only two others have a larger per cent. of female employees earning less than \$8 per week. These two are:—

1. Iron and steel bolts, nuts, washers and rivets not made in steel works or rolling mills.

2. Canning and preserving fish.

Each of these employ less than 400 women workers.

It may, therefore, be asserted that, compared with other industries in the State, the wages paid to women in the manufacture of brushes are markedly low.

Table I. (a) shows that almost a quarter of the workers are found in the group earning \$4 and less than \$5; that the next largest group (23.5 per cent.) earn \$5 and less than \$6; and that the third in size (17.6 per cent.) earn under \$4.

Table I. (a) also enables us to locate the occupations with the largest groups of low-paid workers. Cementing, packing, shipping and brush-making have the largest per cent. of workers earning under \$4. Finishing and packing and shipping have more than a third of the workers earning \$4 and under \$5, and over 45 per cent. of the workers in hammering belong in this group of low-paid workers. More than a quarter of the brush makers, finishers and nailers are in the group of \$5 and under \$6, and a majority of the small group of solderers are also found there. The largest groups of setters and drawers are in the \$6 and under \$7 group. With the exception of drawing, less than 20 per cent. of the workers in any occupation are found in the groups earning over \$7.

In consideration of the question whether the industry will bear a higher rate of compensation than some employers pay, a comparison of the wage level of different establishments is highly important. Examination of Table III. affords this comparison.

Establishment No. 1 is shown to pay less than the average for the whole industry. Not only do a smaller proportion receive "\$9 and over" than in the industry as a whole, but a larger proportion of workers is found in every one of the lower wage groups; for example, 79.1 per cent. of all the workers in the industry earn less than \$7 a week, but in the establishment under consideration 91.4 per cent. of the workers earn less than \$7 a week, — a variation of 12.3 per cent. below the average. Establishments Nos. 10 and 7, on the contrary, pay conspicuously higher wages than the average. Establishment No. 10 has only 25 per cent. of its workers earning less than \$9, and Establishment No. 7 only 36.4 per cent. earning less than \$9, as against an average of 93 per cent. under \$9 in the industry as a whole. This study has made it plain that great variation in wages exists between establishments, and that establishments pay-

ing higher wages exist and prosper in the same neighborhood with others whose wage level is decidedly lower. This fact is true of establishments with similar product, manufacturing for the same market, and for establishments with extreme variation in size of plant. The level of wages is usually in favor of the smaller.

In estimating the per cent. of unemployment, a study was made of the 391 workers whose payments extended over a period of eleven months or more previous to the taking of the transcript of the pay roll. This selected group, of course, constitutes the steadiest body of workers, but it seemed necessary to exclude all others to avoid the danger of attributing unfairly to the industry the absence of persons who for any one of a variety of reasons left the factories permanently in the course of the year.

The variation of employment is shown for this selected group of workers by the curve in Diagram I. It is probable that the largest per cent. of unemployment which occurs in June and August is very largely determined by vacations occurring during these months. The nature of the manufacture does not bring about great seasonal fluctuations. (See also Table V.)

HOURS OF LABOR.

Tables IV. (a) and IV. (b) show that the work of the majority of women employees averaged from forty-two to fifty hours a week during the year; that is, the length of the average working week is less than the legal number of hours allowed in Massachusetts. The majority of workers in the industry are, therefore, not working full time. It will be noticed in Table IV. (b) that this is true of time as well as piece workers, which fact indicates lack of work. It will be noticed that there is no conspicuous relation between hours and wage. For instance, of those earning \$4 and less than \$5, roughly, half average less than forty-six hours of work a week and half more than forty-six hours. Distribution of the same character belongs to most of the other groups.

AGE OF WORKERS.

The occupations connected with brush-making are carried on by young women. It can be seen in Tables II. (a) and II. (b) that the largest age group is eighteen and less than twenty-one years, and the next is twenty-one and less than twenty-five years. Forty-two per cent. of the workers whose ages were secured were less than twenty-one, 64 per cent. less than twenty-five. The youngest workers are conspicuously the lowest paid. Eighty-eight per cent. of those earning under \$6 are under twenty-one.

TABLE I. (a). — *Average Weekly Earnings: by Occupations.*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —																TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.					
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.		
Brush-making,	37	23.3	35	22.0	42	26.4	24	15.1	13	8.2	4	2.5	4	2.5	159	100		
Finishing,	24	15.8	53	34.9	41	27.0	6	3.9	11	7.2	6	4.0	11	7.2	152	100		
Setting,	8	10.5	10	13.2	14	18.4	20	26.3	14	18.4	6	7.9	4	5.3	76	100		
Nailing,	6	18.2	9	27.2	10	30.3	2	6.1	3	9.1	2	6.1	1	3.0	33	100		
Cementing,	12	40.0	5	16.6	7	23.3	2	6.7	2	6.7	—	—	2	6.7	30	100		
Packing and shipping,	9	32.1	10	35.7	6	21.4	1	3.6	—	—	1	3.6	1	3.6	28	100		
Drawing,	1	4.8	3	14.3	1	4.8	6	28.5	1	4.8	4	19.0	5	23.8	21	100		
Soldering,	1	6.7	—	—	9	60.0	5	33.3	—	—	—	—	—	—	15	100		
Hammering,	2	18.2	5	45.4	3	27.3	1	9.1	—	—	—	—	—	—	11	100		
Less than ten workers,	5	11.4	9	20.4	5	11.4	4	9.1	7	15.9	3	6.8	11	25.0	44	100		
Miscellaneous machine processes,	—	—	6	40.0	2	13.3	4	26.7	2	13.3	—	—	1	6.7	15	100		
More than one process,	—	—	5	38.4	—	—	2	15.4	4	30.8	—	—	2	15.4	13	100		
Total,	105	17.6	150	25.1	140	23.5	77	12.9	57	9.5	26	4.4	42	7.0	597	100		

TABLE I. (b). — *Average Weekly Earnings: by Occupations (Cumulative).*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —											
	UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.	
	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.
Brush-making,	37	23.3	72	45.3	114	71.7	138	86.8	151	95.0	155	97.5
Finishing,	24	15.8	77	51.0	118	77.6	124	81.6	135	88.8	141	92.8
Setting,	8	10.5	18	23.7	32	42.1	52	68.4	66	86.8	72	94.7
Nailing,	6	18.2	15	45.5	25	75.8	27	81.8	30	90.9	32	97.0
Cementing,	12	40.0	17	56.7	24	80.0	26	86.7	28	93.3	28	93.3
Packing and shipping,	9	32.1	19	67.9	25	89.3	26	92.9	26	92.9	27	96.4
Drawing,	1	4.8	4	19.0	5	23.8	11	52.4	12	57.1	16	76.2
Soldering,	1	6.7	1	6.7	10	66.7	15	100.0	15	100.0	15	100.0
Hammering,	2	18.2	7	63.6	10	90.9	11	100.0	11	100.0	11	100.0
Less than ten workers,	5	11.4	14	31.8	19	43.2	23	52.3	30	68.2	33	75.0
Miscellaneous machine processes,	—	—	6	40.0	8	53.3	12	80.0	14	93.3	14	93.3
More than one process,	—	—	5	38.5	5	38.5	7	53.8	11	84.6	11	84.6
Total,	105	17.6	255	42.7	395	66.2	472	79.0	529	88.6	555	93.0
											42	7.0

TABLE II. (a). — *Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and Under \$5.	\$5 and Under \$6.	\$6 and Under \$7.	\$7 and Under \$8.	\$8 and Under \$9.	\$9 and Over.	
14 and less than 16, .	23	9	4	—	—	—	—	36
16 and less than 18, .	20	28	3	2	1	—	1	55
18 and less than 21, .	17	46	29	8	6	4	3	113
21 and less than 25, .	8	17	35	22	10	4	9	105
25 and less than 30, .	4	14	19	11	12	6	9	75
30 and less than 35, .	3	8	10	6	5	1	4	37
35 and less than 40, .	4	3	7	7	4	1	2	28
40 and less than 45, .	—	2	5	3	1	—	1	12
45 and less than 50, .	—	2	4	1	4	—	1	12
50 and less than 55, .	1	—	2	2	—	—	1	6
55 and less than 60, .	—	—	—	—	—	2	1	3
Total, . . .	80	129	118	62	43	18	32	482

NOTE. — Data concerning age were not available for 115 workers.

TABLE II. (b). — *Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and Over.
14 and less than 16, .	23	32	36	36	36	36	—
16 and less than 18, .	20	48	51	53	54	54	1
18 and less than 21, .	17	63	92	100	106	110	3
21 and less than 25, .	8	25	60	82	92	96	9
25 and less than 30, .	4	18	37	48	60	66	9
30 and less than 35, .	3	11	21	27	32	33	4
35 and less than 40, .	4	7	14	21	25	26	2
40 and less than 45, .	—	2	7	10	11	11	1
45 and less than 50, .	—	2	6	7	11	11	1
50 and less than 55, .	1	1	3	5	5	5	1
55 and less than 60, .	—	—	—	—	—	2	1
Total, . . .	80	209	327	389	432	450	32

NOTE. — Data for age were not available for 115 workers.

TABLE III. — *Average Weekly Earnings: by Establishments (Cumulative).*

ESTABLISHMENT.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and Over.
No. 1,	19.8	51.5	79.2	91.4	97.0	98.3	1.7
No. 2,	18.4	34.2	56.8	69.5	82.6	90.0	10.0
No. 3,	13.3	53.3	73.3	80.0	93.3	100.0	—
No. 4,	—	—	100.0	100.0	100.0	100.0	—
No. 5,	—	50.0	50.0	50.0	50.0	50.0	50.0
No. 6,	13.2	39.5	55.3	65.8	78.9	86.8	13.2
No. 7,	—	—	—	9.1	36.4	36.4	63.6
No. 8,	—	—	40.0	80.0	80.0	80.0	20.0
No. 9,	17.6	41.2	47.1	70.6	82.4	100.0	—
No. 10,	—	—	—	—	25.0	25.0	75.0
No. 11,	—	50.0	50.0	75.0	75.0	100.0	—
No. 12,	—	50.0	50.0	100.0	100.0	100.0	—
No. 13,	—	—	—	50.0	50.0	50.0	50.0
No. 14,	—	—	—	33.3	100.0	100.0	—
Total,	17.6	42.7	66.2	79.1	88.6	93.0	7.0

TABLE IV. (a). — *Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and Under \$5.	\$5 and Under \$6.	\$6 and Under \$7.	\$7 and Under \$8.	\$8 and Under \$9.	\$9 and Over.	
Less than 30,	5	1	—	—	—	—	—	6
30 and less than 34,	4	7	3	1	—	—	—	15
34 and less than 38,	14	8	5	2	1	2	3	35
38 and less than 42,	21	18	9	14	6	7	2	77
42 and less than 46,	28	33	32	14	13	5	10	135
46 and less than 50,	20	58	74	19	17	5	15	208
50 and less than 54,	—	3	—	3	2	1	2	11
54 and over,	—	—	—	1	1	—	—	2
Total,	92	128	123	54	40	20	32	489

NOTE. — Data concerning hours were not available for 108 workers.

TABLE IV. (b). — *Hours of Labor and Average Weekly Earnings of Piece and Time Workers.*

AVERAGE HOURS PER WEEK.	NUMBER OF PIECE AND TIME WORKERS EARNING —													
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.	
	Piece.	Time.	Piece.	Time.	Piece.	Time.	Piece.	Time.	Piece.	Time.	Piece.	Time.	Piece.	Time.
Less than 30, . . .	1	4	—	1	—	—	—	—	—	—	—	—	—	5
30 and less than 34, . . .	—	4	—	7	—	3	1	—	—	—	—	—	—	14
34 and less than 38, . . .	2	12	—	8	4	1	1	1	1	—	2	—	3	22
38 and less than 42, . . .	2	19	4	14	3	6	9	5	6	—	6	1	1	46
42 and less than 46, . . .	3	25	7	26	9	23	7	7	6	7	4	1	10	89
46 and less than 50, . . .	1	19	1	57	2	72	3	16	8	9	2	3	11	189
50 and less than 54, . . .	—	—	—	3	—	—	—	3	—	2	—	1	1	10
54 and over, . . .	—	—	—	—	—	—	—	1	—	1	—	—	—	2
	9	83	12	116	18	105	21	33	21	19	14	6	26	388
Total, . . .	92	128	123	54	40	20	32	489						

NOTE. — Data concerning hours were not available for 108 workers.

TABLE V. — *Fluctuations of Employment among 391 Workers.*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											
	12	11	10	9	8	7	6	5	4	3	2	1
Total,	52.7	85.7	94.6	96.2	97.2	98.5	99.2	99.5	99.7	100	100	100
Brush-making,	58.8	84.3	95.1	98.0	98.0	99.0	99.0	99.0	100.0	100	100	100
Finishing,	61.6	90.9	98.0	98.0	99.0	99.0	99.0	100.0	100.0	100	100	100
Setting,	43.1	78.4	90.2	92.2	94.1	94.1	100.0	100.0	100.0	100	100	100
Nailing,	57.7	96.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100
Cementing,	58.8	76.5	88.2	88.2	88.2	100.0	100.0	100.0	100.0	100	100	100
Packing and shipping,	46.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	100	100	100
Drawing,	50.0	71.4	92.9	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100
Soldering,	16.7	91.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100
Hammering,	50.0	75.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100
Miscellaneous,	39.6	84.9	90.6	92.5	96.2	100.0	100.0	100.0	100.0	100	100	100

NOTE. — Includes only those workers whose payments extend over a period of eleven months or more previous to the taking of the transcript.

DIAGRAM I.
CURVE SHOWING PER CENT OF UNEMPLOYMENT
FOR 391 BRUSH WORKERS
DURING 52 WEEKS.

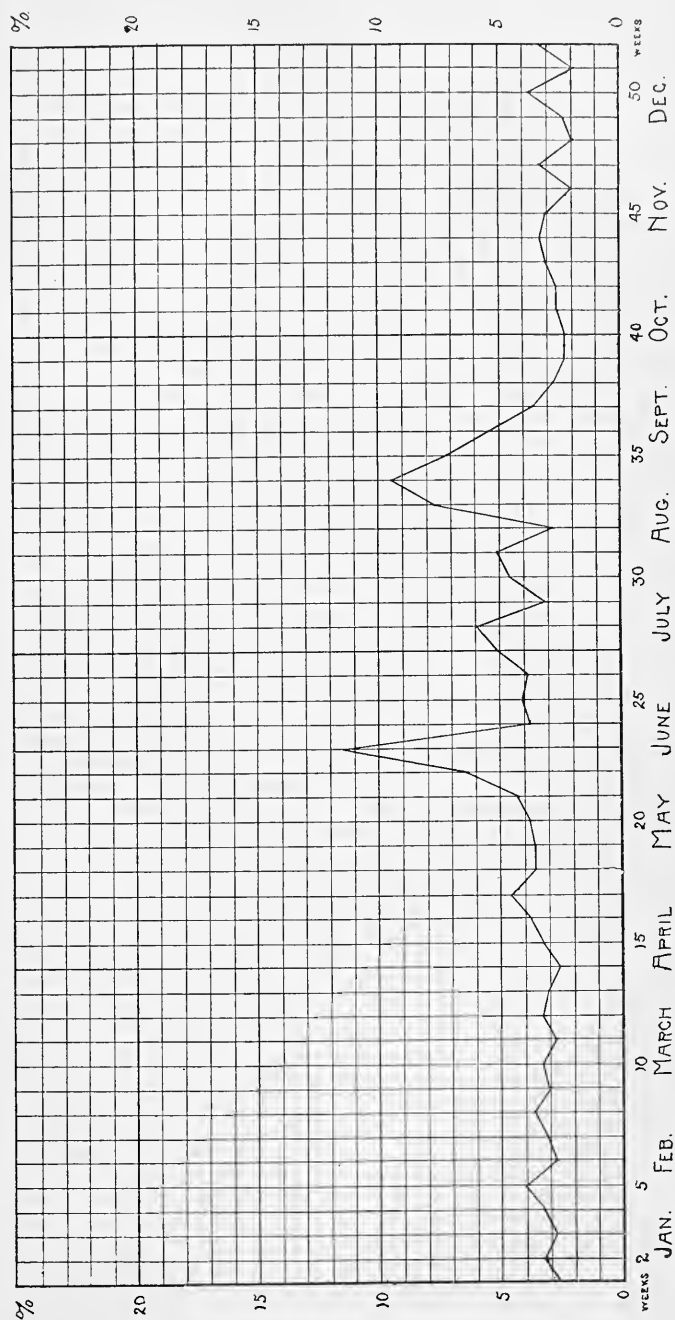


TABLE VI. — *Home Conditions and Weekly Earnings.*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and Under \$5.	\$5 and Under \$6.	\$6 and Under \$7.	\$7 and Under \$8.	\$8 and Under \$9.	\$9 and Over.	
Living at home, . . .	69	119	98	53	35	17	27	418
Living away from home,	11	9	20	8	8	2	5	63
Total, . . .	80	128	118	61	43	19	32	481

NOTE. — Data concerning home conditions were not available for 116 workers.

PRISON LABOR.

Brushes are manufactured by prison labor in two Massachusetts institutions, — the State Prison in Charlestown and the house of correction connected with the Middlesex County Jail in East Cambridge. A list of the varieties made, together with the wholesale rates at which they are sold to State institutions,¹ may be found on pages 12–15 of the descriptive catalogue of prison-made articles issued by the Prison Commission in November, 1913. This list comprises: —

Made in Charlestown: —

Floor brushes.
Dust brushes.
Window brushes.
Whitewash brushes.

Made in Cambridge: —

Floor-waxing brushes.
Rice root dandy brushes.
Scrub brushes.
Shoe brushes.
Shoe polishers.
Dauber brushes.
Stove brushes.
Radiator brushes.
Stair brushes.
Jap sweepers.
Jumbo sweepers.

¹ "The price of all articles and materials supplied by the prisons to the public institutions named in this act shall conform as nearly as may be to the wholesale market rates for similar goods manufactured outside of the prisons. Any difference of opinion in regard to price may be submitted to arbitration in the manner provided in section two of this act." (Section 4, chapter 414, Acts of 1910.)

State institutions are obliged by law to purchase from the prisons all supplies made by prison labor, but brushes are among the few prison-made commodities which can also be sold in the open market, and the sales to private parties far exceed in value those made to State institutions. The annual output is kept very low, however, by the legal restrictions, which prohibit more than 80 prisoners in the State working at the manufacture of brushes at one time, — 35 in the State Prison and 45 in the house of correction. During the year ending Sept. 30, 1912, the receipts from the sales of brushes at the State Prison were \$21,145.60, and the excess of receipts over expenditures was \$4,602.90. The receipts from sales at the house of correction for the same year were \$9,782.52, with a gain of \$1,604.96 to the institution.¹

WAGES OF WOMEN IN THE CORSET FACTORIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The manufacture of corsets, while not one of the large industries of the United States, is conspicuous as one of those which is carried on mainly by women. According to the thirteenth census, 87 per cent. of all the corset workers in the country are women.² In the strictly corset-making occupations few men are employed, except for the heavier work, such as cutting and ironing.

The thirteenth census gives the average number of corset workers in the country for the year 1909 as 17,564. Massachusetts, with 2,156 persons engaged in the industry, stands fourth on the list of States. Connecticut stands first, with 7,177 persons; Michigan second, with 2,875; and New York third, with 2,787. Massachusetts is also fourth with regard to the amount of capital invested (\$1,857,397) and the value of the annual product (\$3,751,641). In Massachusetts over nine-tenths (91.3 per cent.) of the total employees are women.²

The manufacture of ready-made corsets in Massachusetts is confined to three localities: Worcester, Springfield and

¹ Report of the Board of Prison Commissioners for 1912, pp. 146, 152.

² United States, thirteenth census, Vol. VIII., p. 691.

West Brookfield. A study was made of the eight factories in these places, six in Worcester, one in Springfield and one in West Brookfield. The factories differ greatly in size, from a large establishment employing over 1,600 persons to the smallest factory, with less than 100 workers.

In all, wage records were secured for 2,388 women. These represent the total number of women on the pay rolls of the factories at the time when the study was made (September and October, 1913).

The following groups were not included in the tabulation: —

1. Workers who were employed less than four weeks during the year.

2. Those for whom the factory records were defective or incomplete.

3. Those working in paper-box shops connected with the corset factories.

These three groups represent 278 persons, leaving 2,110 persons who are included in the following tables.

In addition to the wage records, additional information in the form of personal data was secured for 680 persons. This includes information as to age, nativity, marital condition, living arrangements and industrial history.

Statistics of Manufacture (Corsets).

	CENSUS RETURNS ¹ FOR 1909.		Statistics of Manu- facturers for 1911, Massachu- setts.
	United States.	Massachu- setts.	
1. Number of establishments,	138	10	11
2. Capital,	\$12,033,421	\$1,857,397	\$2,291,741
3. Value of products,	\$33,257,187	\$3,751,641	\$4,616,274
4. Value added by manufacture (product less cost of materials),	\$17,616,772	\$2,144,442	\$2,466,030
5. Cost of materials used, including fuel and rent of power,	\$15,640,415	\$1,607,199	\$2,150,244
6. Expense (rent, tax, contract, other),	\$3,746,871	\$463,273	— ²
7. Salaries,	\$2,870,536	\$369,655	— ²
8. Wages,	\$6,464,144	\$735,465	\$977,795
9. Total cost,	\$28,721,966	\$3,175,592	— ²
10. Profit,	\$4,535,221	\$576,049	— ²
11. Employees: —			
Number of salaried officials and clerks,	1,956	165	— ²
Average number of wage earners employed during the year,	17,564	1,989	2,701
Male, sixteen years of age and over, December 15, 1910,	2,291	165	248 ³
Female, sixteen years of age and over, Decem- ber 15,	15,234	1,712	2,129 ³
Female, under sixteen years of age, December 15, 1910,	555	95	414 ⁴

¹ United States, thirteenth census, Vol. viii., p. 524 ff.

² Not taken by the Massachusetts Bureau of Statistics.

³ This is the number of employees eighteen years of age and over December 16.

⁴ This is the number of employees under eighteen years of age December 16.

Manufacture of Corsets by States.¹

STATE.	Number of Estab- lishments.	Number engaged in Industry.	Capital.	Value of Product.
Connecticut,	17	7,177	\$6,931,145	\$12,814,736
Illinois,	16	1,663	1,306,114	2,711,213
Massachusetts,	10	2,156	1,857,397	3,751,641
Michigan,	14	2,875	3,038,479	4,367,516
New Jersey,	11	2,013	1,857,156	5,336,348
New York,	47	2,787	2,351,340	5,160,686
Ohio,	4	47	47,164	67,226
Pennsylvania,	6	626	351,077	724,173
All others, ²	13	267	293,549	323,648
Total in United States,	138	—	—	—

¹ United States, thirteenth census, Vol. VIII., p. 666. Figures given are for 1909.

² Arkansas 1, California 2, Georgia 1, Indiana 2, Maryland 2, Minnesota 2, Missouri 2, New Hampshire, 1.

THE PROCESS OF MANUFACTURE.

I. *Sewing Machines used.*

Most of the machinery used in making corsets consists of varieties of the sewing machine, mounted on long, continuous tables. Power is transmitted from shafting under the table by means of a belt, or by individual electric motors on each machine. The principal kinds of machines are as follows:—

Single Needle Machines.—These machines are used for plain seaming and joining, etc., where only one row of stitching is required. Both chain and lock stitch are used for this purpose. The machines are much like the family sewing machines, except for the electric drive and the treadle used to start or stop the machine, and the fact that they are built more substantially for manufacturing purposes. Sometimes the treadle is operated by knee pressure instead of by foot; in either case the pressure required to release the clutch is very slight. The machines feed automatically, and can be operated at a maximum speed of approximately 3,000 stitches per minute.

The usual type is the “flat-bed,” which has the machine-bed flush with the surface of the table; the operative has

to bend over to do her work, but is able to rest her arms on the table. Another type, the high "post" machine, is going out of use; it allows a more erect position, as the needle-plate is from six to eight inches above the level of the table, but it gives no rest for the arms, and the operative has to hold them up continually while guiding her work.

Multiple Needle Machines. — These machines are used where parallel rows of stitching are required, as in the case of the operations of strip-stitching or for lap-seaming. They are equipped with from two to twelve needles and a like number of shuttles, and make simultaneously a corresponding number of rows of stitching. The machine-bed is raised two or three inches above the level of the table; otherwise these machines do not differ materially from those just described. They always sew a lock-stitch, and will sew a strip on the upper and under sides of the corset, insert an interlining, and, by means of guides in the presser-foot, sew in steels in one operation.

Flossing Machines. — These machines differ from the plain sewing machines already described in that they do not feed automatically and that each stitch ordinarily requires two separate pressures of the foot on the treadle. They are used for all work which requires stitches of varying length, as for sewing lace on corsets after the steels are in or for "barring;" that is, making the short rows of stitching across the ends of the steel pockets, to close them so that the steels cannot slip up or down. Any ornamental stitching not performed by hand on corsets is done with the flossing machine, as it can be adapted to any kind of embroidery stitch almost as easily as a needle and thread. As this machine has no feed, the fabric has to be moved by hand to the points where a stitch is to begin and end, and the needle descends at the will of the operative, who controls it by a slight pressure of her foot on the front or toe of the treadle. The pressure for starting the machine is made alternately by the heel and toe pressing the treadle down as far as it will go in each direction. Ordinarily the machines stop at the completion of each stitch, and if a continuous row of stitching is desired it is necessary to hold the treadle in a

horizontal position, when the needle continues to form stitches until the treadle is pushed down in one direction or the other. This continual starting and stopping makes work on a flossing machine much heavier than ordinary stitching, and in one of the factories visited this kind of work is done entirely by men or boys.

Any kind of work done on a flossing machine is often loosely termed "flossing," regardless of the exact nature of the work, whether it be tacking, trimming or barring.

II. *The Occupations.*

Cutting. — Corsets are usually made of coutil, batiste or other strong cotton cloth. The material is laid on a cutting table in from twenty-four to ninety-six thicknesses, a metal or wooden form placed over it, and a sharp knife run around the form, cutting the material into pieces of the required shape and size. The long, narrow strips of material (known as strip or stripping) which are attached to the under side of the corsets to make bone casings are cut out by a power machine with circular knives. Cutting is always done by men because of the strength required to cut through many thicknesses of cloth and to handle heavy rolls of material.

Folding. — The first operation on the corset after it is taken from the cutters to the women operatives is folding. This simple process is the preliminary preparation for certain seams. The pieces are fed into a machine which turns over a narrow fold of the cloth and presses it firmly down, so that when the pieces go to the stitcher this fold can be stitched down flat, making what is called a lap seam. In many factories folding is not done as a separate operation, but the same machine that stitches the seam folds the cloth as it is fed in. In the case of heavy material folding is necessary.

Joining, Seaming or Closing. — The pieces go next to the girls who do the stitching known variously as assembling, seaming, joining or closing. This operation joins together the pieces which are to form the complete garment. The pieces are stitched together either with a plain seam, by a

one-needle machine (the edges being left unfinished and covered later by stripping), or with a lap seam, where the edges are turned under and stitched down by a two-needle machine. This operation is known as lap-seam felling. The plain seaming is the simplest machine stitching there is. Where the pieces to be joined together are cut on the bias, or crossways of the cloth, the operation is called bias seaming, and is more difficult on account of the tendency of the bias edge to stretch and get out of shape unless skillfully handled. The rates on this work vary with the number of pieces in the garment, the length of the seams and the grade of the garment.

Goring. — After the seams of the corset have been closed the gores are set in. These are small V-shaped inserts, which are stitched with a bias seam. The operation requires skillful and careful work to make a smooth, neat seam, and is one of the highest paid. Many styles of corsets do not have gores.

Putting on Belts. — The tape which forms the waistband inside the corset is pasted on by hand or by machine, or is tacked or basted by the flossing machine. Either of these operations is known as “belts.” The basting stitches are pulled out of the belt after the strips and steels are stitched across it, as these are enough to keep it in place.

Steel Setting. — The front steels (or clasps) and the side steels are wider and stronger than the others, and are attached singly to the under side of the corset by strips of facing. The front steels are first laid in a fold of the cloth with the clasps projecting through slits; this operation is called steel setting, laying or placing.

Steel Stitching. — The steels are then stitched in place with one or two rows of stitching. For the side steels a two-needle machine is used, as a row of stitching must be made on each side of the steel. The steel is guided into the space between the needles through holes in a steel arm which is screwed to the bed of the machine. The operation requires skill to keep the stitching as near as possible to the steel without breaking the needle against it. It is a skilled operation and one of the best paid.

Stripping. — The narrow, flexible steels (or “wires”) which are used in pairs or in threes at the sides of the corset can be stitched in like the front and side steels, but are sometimes pushed in by hand. Stripping is the process of stitching “strip” or facing to the under side of the corset to case these wires. There are two kinds of strip, — either a finished tape is used or strips of material cut out and folded along both edges by machine and wound into large rolls (winding stripping). The operatives by using multiple needle machines make three or four rows of stitching at once, according to the number of wires to be inserted, — three rows for two wires, four rows for three wires. The more needles the machine has the greater the skill required, and piece rates for stripping vary accordingly.

Back-stitching. — The back of a corset usually has a pair of wires at each side, which are inserted, like the side wires, by the boners (see “boning”), after back strips have been stitched on with a four-needle machine. Back-stitching is the process of stitching on these back strips, which differs from ordinary stripping in that the raw edge of the corset has to be turned in under the strip. Individual styles of corset, however, vary from this general practice.

In all of the stitching operations here described finger pricks by the needle are of somewhat frequent occurrence.

First Examining and Mending. — At this point the corsets are examined and any defects in stitching are remedied by special menders, repair girls or by the examiners themselves. Menders are paid by the hour, and in some factories their wage for the time they spend on each piece of mending is entered as a charge against the wage of the operative whose faulty stitching made it necessary.

Boning. — The corsets next go to the boners, — young girls who push the wires (or “bones”) under the casing strips by hand.¹ They use a small wooden tool like a crochet hook to open the end of the casing and work with remarkable speed, inserting two or three bones at a time, but the work requires little skill. From these beginners the

¹ In many factories the wires are put in at the same time the cloth strips are put on and therefore no boners are employed.

forewomen, who are watching for signs of ability, select girls to learn the more difficult operations. Although this process is still called boning, very little whalebone is now used in ready-made corsets, the "bones" being strips of flexible steel.

Barring or Flossing. — When the bones have been pushed into their cases the open ends are closed with a short row or "bar" of stitching. On the more expensive corsets these ends after being barred are stayed or reinforced by satin-stitching across them with the flossing machine. Sometimes both these operations are called flossing.

Shaping. — The corset now has all its steels and wires in and is ready to be shaped. The shaper trims the top and bottom edges of the corset into a smooth curve, either with a pair of scissors or by machine. The scissors are large and heavy, as they have to cut through several thicknesses, and they are wrapped with cloth and felt to protect the hands. The shaping machine consists of two circular knives revolved by power, one upon the other. The operative places the edge of the corset between the knives, the edges of which are guarded, and guides it through. This operation is of importance as it determines in part the outline of the corset.

Binding. — The shaped top and bottom edges are next bound with a strip of braid or other folded material, using one or two rows of stitching. Sometimes a draw string is put in the upper edge, and hose supporters on the lower edge, in the process of binding.

Hose supporters are usually stitched in with the bottom binding, but are occasionally put on separately. The operation called "hose supporters" is not making the supporters but simply stitching or sewing them on. The corset factories in Massachusetts do not manufacture their own hose supporters, but buy them ready-made from garter and suspender factories.

Cutting Ends, End-stitching and Finishing. — The unfinished ends of binding and loose ends of thread left by the stitchers are next cut off, and in the better grade of corsets the raw edges of binding are finished at the end by hand or machine stitching.

Eyeletting and Hook-punching. — These are the two processes for which a punch machine is used. The eyeletting machine punches the rows of holes for corset laces. Most eyeletting machines make only one row at a time; those which make both rows at once are less commonly used. The operative places the corset in position and starts the machine by a slight pressure of the foot. The corset is then fed along automatically under two punches, the first of which cuts out circular holes in the cloth into which the second inserts metal rims or eyelets, folds them over and presses them down tightly. The hook-punch punches in the hook and eye which fasten the corset below the front steels. This machine differs from the other just as the flossing machine differs from the plain stitching machine, as it does not feed automatically, and separate movements of the foot are required for each hook and each eye. The hook-punch jars and shakes the operative considerably, and both these machines involve much heavier, though not more skilled, work than the plain stitching machines. In one factory only was either of these machines found run by men or boys. The punches are not guarded, but no accident to operatives on these machines was heard of.

Top Trimming, Lace Stitching, Lace Tacking and Flossing. — The tops of corsets are variously ornamented. Usually lace or embroidery (known as Hamburg) is used. The trimming is first stitched along the top edge of the corset, and its lower edge is then tacked down at intervals between the steels with the flossing machine or (in high-grade corsets) by hand. Sometimes top trimming and binding are done at the same time, or (in the cheapest corsets) top trimming takes the place of top binding.

Stringing Lace. — The lace used for trimming is sometimes threaded with ribbon before it is put on the corset. This is done by hand or by machine.

Hand Sewing. — The hand sewing on corsets is usually confined to the few stitches required to finish the garment, such as sewing down the front of the trimming, tacking on a bow or putting on the skirt hook. More expensive corsets are trimmed entirely by hand.

Ironing. — The corset is now completely made and taken to the ironing room. Before the corsets are ironed the operatives dampen them by holding them in steam from a pipe over a sink. Instead of steam sometimes a cold vapor is used. The steam pipes are sometimes in a room apart from the ironing room (or "laundry") and sometimes merely screened off from it by a wooden partition. No provision is made to prevent the operatives from breathing in the steam while standing at the pipes with the corsets in their hands. Various methods of ironing corsets are in use. In most factories the irons are heated by gas or electricity and propelled by hand; the ironers are either men or women, and do their work standing. In two of the factories visited automatic irons are in use; these are both heated and propelled by electricity, moving back and forth across a padded board while the ironer sits and shifts the corset about so that every part comes under the iron. It was stated that these machines, costing several hundred dollars each, greatly lessen labor cost, as the girls who run them can be hired at half the cost of men for hand-ironing. Dampening and ironing stiffen and shape the corsets.

Matching, Numbering, Measuring and Stamping. — The finished corsets are next measured, matched and stamped with their size number and style number or name. Sometimes a label with the name of the style has already been stitched in by the binder, stripper or hand-sewer.

Second Examining, Final Examining or Inspecting. — The corsets are finally inspected for imperfections, and when these have been remedied they are ready for shipping.

Clasping, Rolling and Boxing. — The final processes through which the corset passes are clasping (fastening the two parts together), rolling and boxing. Rolling is done by a hand machine having a fork-shaped projection in which each corset is placed. By turning a handle the fork is made to revolve and the corset rolls loosely around it. This method of rolling has the advantage of preventing unnecessary handling, but is not used in all factories. Sometimes boxing includes wrapping the corsets in tissue paper.

Position at Work. — The girls sit for practically all of their occupations, except hand ironing, examining, measuring,

stamping, rolling and boxing. Some of these can be done either standing or sitting, but in all cases the girls while standing can move about freely. Positions while sitting at the stitching machines vary according to the kind of machine used.

Manufacture of Accessories. — Boxes in which the corsets are packed are sometimes made on the premises. One factory has an up-to-date printing plant from which its advertising matter is issued. None of the factories in the State manufacture the eyelets, corset laces, steels or wires, hose supporters or other accessory parts of corsets.

THE WAGE SITUATION.

The average weekly earnings of the whole number of corset workers studied, as shown in Table I. (a) and (b), exhibit wide variation, from the group (9.6 per cent.) who earned less than \$4 a week in the year preceding the investigation, to the larger group of better-paid workers (16.4 per cent.), who earned \$9 or more a week. The largest number of workers (18 per cent.) are found in the group who earned \$6 and less than \$7. On the whole, more than half of the workers (53.5 per cent.) received an average of less than \$7 a week, and 35.5 per cent. received less than \$6 a week.

The scale of wages varies greatly among the different occupations. The ironers, whose work requires strength and speed, received higher wages than any other group of workers; nearly one-half (48.1 per cent.) earned \$9 or more a week. The shapers, who perform a process requiring a high degree of accuracy, also received markedly higher wages than the majority of workers; 38 per cent. earned \$9 or more a week. Folding, on the other hand, is one of the lowest paid occupations. No folder earned as much as \$8 a week, and 45.5 per cent. earned less than \$4. Hand sewing, boning and steel setting were also very poorly paid; more than a fifth of the workers in each of these occupations earned less than \$4 a week, and 63.9 per cent., 66.7 per cent., and 57.1 per cent., respectively, earned less than \$6 a week.

A comparison of the wage level in different establishments

has important bearing upon the question of the effect upon the industry of paying a higher rate of compensation to the minimum wage earner. Striking, in this connection, is the degree of variation in the wages paid by different establishments as indicated by Table III. Establishment No. 7 paid weekly earnings of less than \$6 to only 13.3 per cent. of its workers, while Establishments Nos. 4 and 6 paid less than \$6 to 63.8 per cent. and 56 per cent. respectively. In each of the two latter establishments the percentage of workers who earned as much as \$9 a week is almost negligible, whereas Establishment No. 7 paid \$9 or more a week to 43.4 per cent. of its workers. Establishments Nos. 4 and 6 paid less than the average for the industry in every instance. Reasons for the existing difference of wage levels within the State claim attention before the defence of low wages, on the basis of interstate and foreign competition. The foregoing presentation sets forth the fact that the corset industry in Massachusetts does show great variation in the wages of different establishments.

HOURS.

The failure of many factories to keep records of the number of hours worked by each employee each week has been noted in the report of the commission.¹ The amount of available material, though small, is valuable as an indication of the general custom of the corset factories with regard to the usual length of the working week. Table IV. shows that 121 out of the 146 women for whom records of hours were available had an average working week of fifty hours or more, but that in no single instance did the average working week reach fifty-four hours. The number available is insufficient for the basis of a deduction of the relation between hours and earnings.

AGE.

Information as to the age of the women employees in the corset factories was obtained for 667 workers. According to the summary of this material given in Table II., the ma-

¹ See p. 10.

jority of the workers are less than twenty-five years of age. The relation between age, which may often be translated into terms of years of experience in the industry, and earnings is made clearly apparent in this table. One-half of the workers under sixteen years of age earned less than \$4 a week, but increasingly smaller proportions of the succeeding age-groups earned the smaller amounts. Correspondingly, up to thirty-five years, the largest number of workers is found with successively higher earnings. After the age of thirty-five is reached the constant relation between age and earnings is no longer apparent.

UNEMPLOYMENT.

Table V., which presents an analysis of the material concerning the time of unemployment, is based on the records of persons whose payments extended over a period of eleven months or more, previous to the taking of the transcript of the pay roll. This selected group of course constitutes the steadiest body of workers, but it seemed necessary to exclude all others to avoid the danger of attributing unfairly to the industry the absence of persons who, for any one of a variety of reasons, left the factories permanently in the course of the year. One-fourth (25.7 per cent.) of the workers were employed for the full fifty-two weeks of the year; that is, took no vacations and were not absent from the factory for any other reason. More than three-fourths (77 per cent.) worked for eleven months. There is noticeable a marked variation in the number working the year around according to occupation. Ironing alone shows a majority at work for the whole time. No occupation, however, shows less than three-fourths of its workers employed for ten months.

Diagram I. shows that the largest amount of unemployment occurred in the first part of July, a fact which is to be explained by the tendency to take vacations at that time. The busiest season occurs in the autumn and early winter. Marked seasonal variation is not characteristic of the industry.

HOME CONDITIONS.

Of the total number of corset workers studied, data concerning home conditions were available for only 672, the majority of whom, 565 (84.1 per cent.), were reported as living at home.

Table VI. shows that of those living at home, 11.9 per cent. earned under \$4 per week as against 6.5 per cent. of the group living away from home. On the other hand, of the workers living at home, only 53, or 9.4 per cent., earned \$9 and over, while of those living away, 18, or 16.8 per cent., had earnings of \$9 and over. Only in rare instances is it possible for the workers earning the smaller amounts to live away from home without some supplement to the wage.

TABLE I. (a). — *Average Weekly Earnings : by Occupations.*

OCCUPATIONS.		NUMBER AND PER CENT. OF WORKERS EARNING --												TOTAL.	
		UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.	
		Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Joining and seaming,	.	4	1.3	19	6.2	40	13.1	60	19.6	63	20.6	61	19.9	59	19.3
Stripping,	.	6	2.9	12	5.8	30	14.6	32	15.5	28	13.6	35	17.0	63	30.6
Steel stitching,	.	8	4.5	12	6.9	30	17.1	31	17.7	26	14.9	33	18.9	35	20.0
Hand sewing,	.	47	27.8	34	20.1	27	16.0	26	15.4	14	8.3	14	8.3	7	4.1
Examining,	.	9	6.0	14	9.2	30	19.9	42	27.8	34	22.5	13	8.6	9	6.0
Boning,	.	27	22.5	26	21.7	27	22.5	21	17.5	11	9.2	4	3.3	4	3.3
Top trimming,	.	3	2.7	7	6.3	25	22.6	21	18.9	19	17.1	17	15.3	19	17.1
Binding,	.	8	7.2	6	5.4	16	14.4	20	18.0	25	22.5	13	11.7	23	20.8
Ironing,	.	-	-	1	1.3	3	3.8	9	11.4	8	10.1	20	25.3	38	48.1
Back stitching,	.	1	1.6	10	15.9	5	7.9	12	19.1	14	22.2	6	9.5	15	23.8
Steel setting,	.	12	21.4	9	16.1	11	19.6	15	26.8	3	5.4	4	7.1	2	3.6
Pressing,	.	-	-	3	6.5	10	21.7	5	10.9	5	10.9	10	21.7	13	28.3
Folding,	.	20	45.5	7	15.9	8	18.2	7	15.9	2	4.5	-	-	-	-
Shaping,	.	2	4.8	5	11.9	2	4.8	6	14.3	6	14.3	5	11.9	16	38.0
Belting,	.	5	12.8	2	5.1	2	5.1	5	12.8	4	10.3	12	30.8	9	23.1

TABLE I. (a). — *Average Weekly Earnings: by Occupations — Concluded.*

NUMBER AND PER CENT. OF WORKERS EARNING —																
OCCUPATIONS.	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		TOTAL.	
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Mending,	1	2.7	8	21.6	3	8.1	3	8.1	6	16.2	15	40.6	1	2.7	37	100
Boxing,	5	13.9	7	19.4	5	13.9	6	16.7	5	13.9	2	5.5	6	16.7	36	100
Stitching supporters,	2	5.9	5	14.7	3	8.8	3	8.8	8	23.6	10	29.4	3	8.8	34	100
General work,	2	6.1	3	9.1	6	18.2	4	12.1	1	3.0	10	30.3	7	21.2	33	100
Checking and ticketing,	—	—	—	—	3	10.0	10	33.3	10	33.3	6	20.0	1	3.4	30	100
Eyeletting and hook-punching,	2	7.7	6	23.1	6	23.1	2	7.7	4	15.4	3	11.5	3	11.5	26	100
Tracing orders,	2	10.0	1	5.0	5	25.0	5	25.0	2	10.0	5	25.0	—	—	20	100
Matching,	—	—	4	26.7	3	20.0	4	26.7	1	6.6	3	20.0	—	—	15	100
Giving out work,	—	—	—	—	1	10.0	4	40.0	1	10.0	3	30.0	1	10.0	10	100
More than one occupation,	18	20.2	11	12.3	14	15.7	17	19.1	15	16.9	6	6.8	8	9.0	89	100
Less than ten workers,	9	23.1	4	10.3	7	17.9	7	17.9	5	12.8	4	10.3	3	7.7	39	100
Occupation not specified,	12	52.2	2	8.7	4	17.4	2	8.7	2	8.7	—	—	1	4.3	23	100
Total,	204	9.6	219	10.4	326	15.4	379	18.0	322	15.3	314	14.9	346	16.4	2,110	100

TABLE I. (b). — *Average Weekly Earnings: by Occupations (Cumulative).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and Over.
Joining and seaming, .	1.3	7.5	20.6	40.2	60.8	80.7	19.3
Stripping, . . .	2.9	8.7	23.3	38.8	52.4	69.4	30.6
Steel stitching, . .	4.5	11.4	28.6	46.3	61.1	80.0	20.0
Hand sewing, . . .	27.8	47.9	63.9	79.3	87.6	95.9	4.1
Examining, . . .	6.0	15.2	35.1	62.9	85.4	94.0	6.0
Boning,	22.5	44.2	66.7	84.2	93.3	96.7	3.3
Top trimming, . . .	2.7	9.0	31.5	50.5	67.6	82.9	17.1
Binding,	7.2	12.6	27.0	45.0	67.6	79.2	20.8
Ironing,	—	1.3	5.1	16.5	26.7	51.9	48.1
Back stitching, . .	1.6	17.5	25.4	44.4	66.7	76.2	23.8
Steel setting, . . .	21.4	37.5	57.1	83.9	89.3	96.4	3.6
Flossing,	—	6.5	28.3	39.1	50.0	71.7	28.3
Folding,	45.5	61.4	79.5	95.5	100.0	100.0	—
Shaping,	4.8	16.7	21.4	35.7	50.0	61.9	38.1
Belting,	12.8	17.9	23.1	35.9	46.2	76.9	23.1
Mending,	2.7	24.3	32.4	40.5	56.8	97.3	2.7
Boxing,	13.9	33.3	47.2	63.9	77.8	83.3	16.7
Stitching supporters, .	5.9	20.6	29.4	38.2	61.8	91.2	8.8
General work, . . .	6.1	15.2	33.3	45.5	48.5	78.8	21.2
Checking and ticketing,	—	—	10.0	43.3	76.7	96.6	3.4
Eyeletting and hook-punching,	7.7	30.8	53.8	61.5	76.9	88.5	11.5
Tracing orders, . .	10.0	15.0	40.0	65.0	75.0	100.0	—
Matching,	—	26.7	46.7	73.3	80.0	100.0	—
Giving out work, . .	—	—	10.0	50.0	60.0	90.0	10.0
More than one occupation.	20.2	32.6	48.3	67.4	84.3	91.0	9.0
Less than ten workers, .	23.1	33.3	51.3	69.2	82.1	92.3	7.7
Occupation not specified,	52.2	60.9	78.3	86.5	95.7	95.7	4.3
Total,	9.6	20.0	35.5	53.5	68.7	83.6	16.4

TABLE II. (a). — *Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and Under \$5.	\$5 and Under \$6.	\$6 and Under \$7.	\$7 and Under \$8.	\$8 and Under \$9.	\$9 and Over.	
14 and less than 16, .	36	17	8	9	2	—	—	72
16 and less than 18, .	19	22	16	18	8	4	2	89
18 and less than 21, .	5	20	40	47	29	22	7	170
21 and less than 25, .	2	14	22	20	45	23	23	149
25 and less than 30, .	—	4	10	15	14	17	17	77
30 and less than 35, .	2	1	1	6	4	4	10	28
35 and less than 40, .	2	5	5	2	5	3	5	27
40 and less than 45, .	4	1	3	5	5	4	4	26
45 and less than 50, .	1	1	1	4	2	—	2	11
50 and less than 55, .	—	2	3	2	1	—	1	9
55 and less than 60, .	—	—	1	1	—	2	—	4
60 and over, . . .	1	—	—	—	1	—	3	5
Total, . . .	72	87	110	129	116	79	74	667

NOTE. — Data concerning age were not available for 1,443 workers.

TABLE II. (b). — *Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and Over.
14 and less than 16, .	36	53	61	70	72	72	—
16 and less than 18, .	19	41	57	75	83	87	2
18 and less than 21, .	5	25	65	112	141	163	7
21 and less than 25, .	2	16	38	58	103	126	23
25 and less than 30, .	—	4	14	29	43	60	17
30 and less than 35, .	2	3	4	10	14	18	10
35 and less than 40, .	2	7	12	14	19	22	5
40 and less than 45, .	4	5	8	13	18	22	4
45 and less than 50, .	1	2	3	7	9	9	2
50 and less than 55, .	—	2	5	7	8	8	1
55 and less than 60, .	—	—	1	2	2	4	—
60 and over, . . .	1	1	1	1	2	2	3
Total, . . .	72	159	269	398	514	593	74

NOTE. — Data concerning age were not available for 1,443 workers.

TABLE III. — *Average Weekly Earnings: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and Over.
No. 1,	8.2	17.6	33.6	51.5	66.3	82.7	17.3
No. 2,	4.7	11.6	26.7	43.5	67.2	84.9	15.1
No. 3,	19.3	35.2	45.5	63.6	77.3	87.5	12.5
No. 4,	20.0	46.7	63.8	81.0	92.4	98.1	1.9
No. 5,	12.0	21.5	41.1	61.4	78.5	89.9	10.1
No. 6,	26.4	41.8	56.0	72.5	92.3	98.9	1.1
No. 7,	2.1	4.9	13.3	28.7	37.8	56.6	43.4
No. 8,	15.8	33.3	52.6	63.2	84.2	91.2	8.8
Total,	9.6	20.0	35.5	53.5	68.7	83.6	16.4

TABLE IV. — *Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and Under \$5.	\$5 and Under \$6.	\$6 and Under \$7.	\$7 and Under \$8.	\$8 and Under \$9.	\$9 and Over.	
Less than 42,	1	—	—	—	—	—	—	1
42 and less than 46,	—	3	—	—	—	1	1	5
46 and less than 50,	—	4	4	2	3	4	2	19
50 and less than 54,	5	5	19	30	17	34	11	121
Total,	6	12	23	32	20	39	14	146

NOTE. — Data concerning hours were not available for 1,964 workers.

Belting,	28.0	96.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Mending,	11.8	83.2	94.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Boxing,	28.6	85.7	90.5	90.5	95.2	95.2	100.0	100.0	100.0	100.0	100.0	100
Stitching supporters,	29.4	94.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
General work,	20.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Checking and ticketing,	14.3	85.7	95.2	100.0	100.0	100.0	100.0	110.0	100.0	100.0	100.0	100
Eyeletting and hook-punching,	30.8	69.2	76.9	84.6	92.3	100.0	100.0	100.0	100.0	100.0	100.0	100
Tracing orders,	12.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Matching,	28.6	85.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
Giving out work,	37.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100
More than one occupation,	22.2	77.8	93.3	95.6	95.6	95.6	95.6	97.8	100.0	100.0	100.0	100
Less than ten workers,	15.8	57.9	84.2	89.5	94.7	94.7	94.7	94.7	100.0	100.0	100.0	100
Occupation not specified,	25.0	87.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100

NOTE. — Includes only those workers whose payments extend over a period of eleven months or more previous to the taking of the transcript.

DIAGRAM I.

CURVE SHOWING PER CENT OF UNEMPLOYMENT
FOR 1,198 CORSET WORKERS
DURING 52 WEEKS.

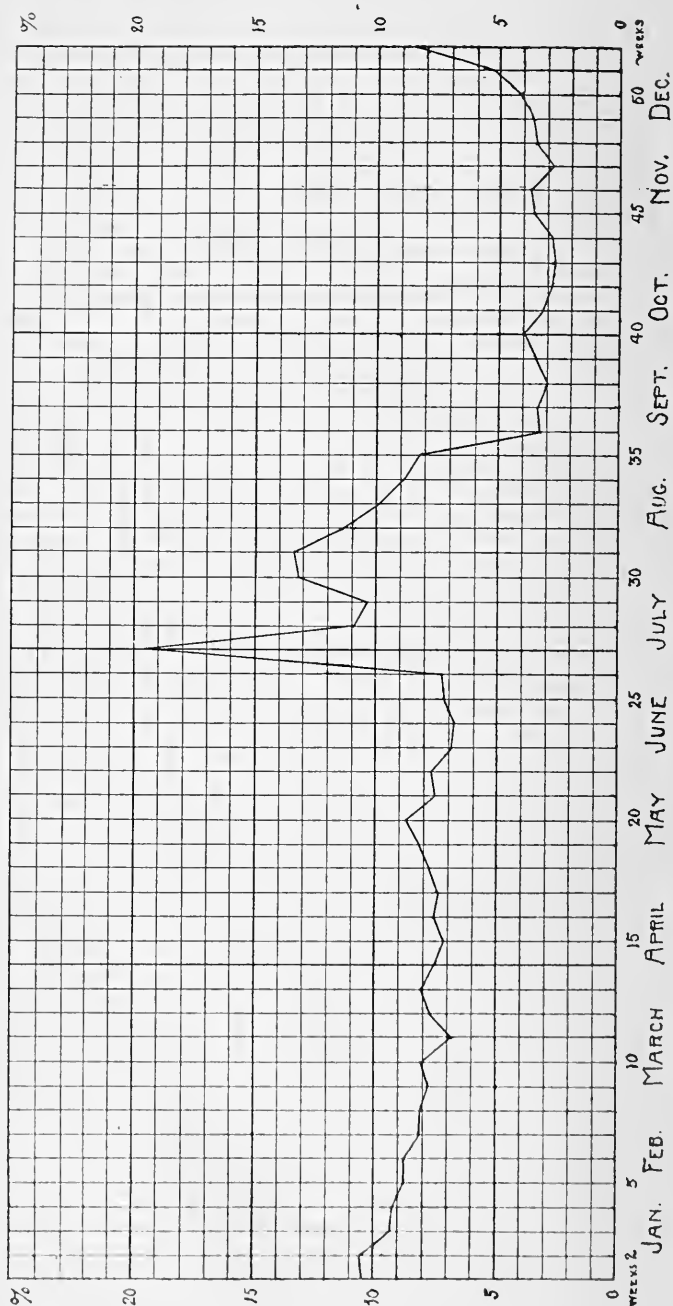


TABLE VI. — *Home Conditions and Weekly Earnings (Cumulative).*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and Over.
Living at home, . . .	67	141	233	341	440	512	53
Living away from home, . . .	7	17	36	59	76	89	18
Total,	74	158	269	400	516	601	71

NOTE. — Data concerning home conditions were not available for 1,438 workers.

FINANCIAL STATEMENT.

Appropriations:—

For salary of secretary,	\$2,000 00	
For compensation of members and expenses of commission,	5,000 00	
	<hr/>	\$7,000 00

Expenditures:—

Salary of secretary,	\$833 33	
Commissioners' services and expenses, \$886 88		
Salaries and expert services,	2,212 32	
Traveling expenses and incidentals,	406 89	
Rent,	320 00	
Equipment purchased,	711 35	
Equipment rented,	19 00	
Printing,	191 70	
Telephone and telegraph,	33 04	
Stationery,	88 41	
Postage,	44 94	
	<hr/>	4,914 53
		<hr/>
		\$5,747 86

Unexpended balance reverting
to State treasury:—

Salary of secretary,	\$1,166 67	
General appropriation,	85 47	
	<hr/>	1,252 14
		<hr/>
		\$7,000 00

Respectfully yours,

AMY HEWES,
Secretary.

APPENDICES.

APPENDIX No. 1.

CHAPTER 706, ACTS OF 1912, AS AMENDED BY CHAPTERS 330 AND 673, ACTS OF 1913.

AN ACT TO ESTABLISH THE MINIMUM WAGE COMMISSION AND TO PROVIDE FOR THE DETERMINATION OF MINIMUM WAGES FOR WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. There is hereby established a commission to be known as the Minimum Wage Commission. It shall consist of three persons, one of whom may be a woman, to be appointed by the governor, with the advice and consent of the council. One of the commissioners shall be designated by the governor as chairman. The first appointments shall be made within ninety days after the passage of this act, one for a term ending October first, nineteen hundred and thirteen, one for a term ending October first, nineteen hundred and fourteen, and one for a term ending October first, nineteen hundred and fifteen; and beginning with the year nineteen hundred and thirteen, one member shall be appointed annually for the term of three years from the first day of October and until his successor is qualified. Any vacancy that may occur shall be filled in like manner for the unexpired part of the term.

SECTION 2. Each commissioner shall be paid ten dollars for each day's service, in addition to the traveling and other expenses incurred in the performance of his official duties. The commission may appoint a secretary, who shall be the executive officer of the board and to whose appointment the rules of the civil service commission shall not apply. It shall determine his salary, subject to the approval of the governor and council. The commission may incur other necessary expenses not exceeding the annual appropriation therefor, and shall be provided with an office in the state house or in some other suitable building in the city of Boston.

SECTION 3. It shall be the duty of the commission to inquire into the wages paid to the female employees in any occupation in the commonwealth, if the commission has reason to believe that the wages paid to a substantial number of such employees are inadequate to supply the necessary cost of living and to maintain the worker in health.

SECTION 4. If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the

necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of not less than six representatives of employers in the occupation in question and of an equal number of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public, but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall designate the chairman from among the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determinations of the boards. The members of wage boards shall be compensated at the same rate as jurors; they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission.

SECTION 5. The commission may transmit to each wage board all pertinent information in its possession relative to the wages paid in the occupation in question. Each wage board shall take into consideration the needs of the employees, the financial condition of the occupation and the probable effect thereon of any increase in the minimum wages paid, and shall endeavor to determine the minimum wage, whether by time rate or piece rate, suitable for a female employee of ordinary ability in the occupation in question, or for any or all of the branches thereof, and also suitable minimum wages for learners and apprentices and for minors below the age of eighteen years. When a majority of the members of a wage board shall agree upon minimum wage determinations, they shall report such determinations to the commission, together with the reasons therefor and the facts relating thereto.

SECTION 6. Upon receipt of a report from a wage board, the commission shall review the same, and may approve any or all of the determinations recommended, or may disapprove any or all of them, or may recommit the subject to the same or to a new wage board. If the commission approves any or all of the determinations of the wage board it shall, after not less than fourteen days' notice to employers paying a wage less than the minimum wage approved, give a public hearing to such employers, and if, after such public hearing, the commission finally approves the determination, it shall enter a decree of its findings and note thereon the names of employers, so far as they may be known to the commission, who fail or refuse to accept such minimum wage and to agree to abide by it. The commission shall thereafter publish in at least one newspaper in each county of the commonwealth a summary of its findings and of its recommendations. It shall also at such times and in such manner as it shall deem advisable publish the facts, as it may find them to

be, as to the acceptance of its recommendations by the employers engaged in the industry to which any of its recommendations relate, and may publish the names of employers whom it finds to be following or refusing to follow such recommendations. An employer who files a declaration under oath in the supreme judicial court or the superior court to the effect that compliance with the recommendation of the commission would render it impossible for him to conduct his business at a reasonable profit shall be entitled to a review of said recommendation by the court under the rules of equity procedure. The burden of proving the averments of said declaration shall be upon the complainant. If, after such review, the court shall find the averments of the declaration to be sustained, it may issue an order restraining the commission from publishing the name of the complainant as one who refuses to comply with the recommendations of the commission. But such review, or any order issued by the court thereupon, shall not be an adjudication affecting the commission as to any employer other than the complainant, and shall in no way affect the right of the commission to publish the names of those employers who do comply with its recommendations. The type in which the employers' names shall be printed shall not be smaller than that in which the news matter of the paper is printed. The publication shall be attested by the signature of at least a majority of the commission.

SECTION 7. In case a wage board shall make a recommendation of a wage determination in which a majority but less than two-thirds of the members concur, the commission, in its discretion, may report such recommendation and the pertinent facts relating thereto to the general court.

SECTION 8. Whenever a minimum wage rate has been established in any occupation, the commission may, upon petition of either employers or employees, reconvene the wage board or establish a new wage board, and any recommendation made by such board shall be dealt with in the same manner as the original recommendation of a wage board.

SECTION 9. For any occupation in which a minimum time rate only has been established, the commission may issue to any woman physically defective a special license authorizing the employment of the licensee for a wage less than the legal minimum wage: *provided*, that it is not less than the special minimum wage fixed for that person.

SECTION 10. The commission may at any time inquire into the wages paid to minors in any occupation in which the majority of employees are minors, and may, after giving public hearings, determine minimum wages suitable for such minors. When the commission has made such a determination, it may proceed in the same manner as if the determination had been recommended to the commission by a wage board.

SECTION 11. Every employer of women and minors shall keep a

register of the names, addresses and occupations of all women and minors employed by him and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 12. Upon request of the commission, the director of the bureau of statistics shall cause such statistics and other data to be gathered as the commission may require, and the cost thereof shall be paid out of the appropriation made for the expenses of the commission.

SECTION 13. Any employer who discharges or in any other manner discriminates against any employee because such employee has testified, or is about to testify, or because the employer believes that the employee may testify, in any investigation or proceeding relative to the enforcement of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than two hundred dollars, and not more than one thousand dollars for each offence.

SECTION 14. The commission shall from time to time determine whether employers in each occupation investigated are obeying its decrees, and shall publish in the manner provided in section six, the name of any employer whom it finds to be violating any such decree.

SECTION 15. Any newspaper refusing or neglecting to publish the findings, decrees or notices of the commission at its regular rates for the space taken shall, upon conviction thereof, be punished by a fine of not less than one hundred dollars for each offence.

SECTION 16. No member of the commission and no newspaper publisher, proprietor, editor or employee thereof, shall be liable to an action for damages for publishing the name of any employer in accordance with the provisions of this act, unless such publication contains some wilful misrepresentation.

SECTION 17. The commission shall, annually, on or before the first Wednesday in January, make a report to the general court of its investigations and proceedings during the preceding year.

SECTION 18. This act shall take effect on the first day of July in the year nineteen hundred and thirteen. [*Approved June 4, 1912.*]

APPENDIX No. 2.

RULES OF PROCEDURE FOR THE BRUSH MAKERS' WAGE BOARD.

Name. — This Board shall be known under the title of the Brush Makers' Wage Board.

1. *Organization.* — The chairman and secretary shall be appointed by the Minimum Wage Commission.

2. *Term of Office.* — The term of office of the Brush Makers' Wage Board shall be three years. Any representative of employers who becomes a worker at the trade shall vacate his seat. Any representative of workers who becomes an employer shall also vacate his seat. The question of fact shall in each case be determined by the commission. The commission may remove any member of the Board who shall unreasonably fail to attend the meetings of the Board, or who shall otherwise display unfitness for service thereupon. Vacancies shall be filled in such manner as the commission may designate.

3. *Voting.* — Each member shall have one vote. If, in the opinion of the chairman, the question upon which a vote is to be taken is one of permanent importance, in order that the vote may be, so far as possible, an expression of the opinion of the whole Board, the secretary shall obtain the vote of an absent member with his opinion in writing.

4. *Powers, Duties and Procedure.* — The Board shall examine the material submitted by the commission. It shall consider the question: What is the sum required a week to maintain in frugal but decent conditions of living, a self-supporting woman employed in a brush-making establishment?

It is the opinion of the commission that the absolute essentials of such decent conditions of living are (a) respectable lodging; (b) three meals a day; (c) suitable clothing; (d) some provision for recreation, self-improvement and care of health.

It shall consider the condition of the industry and effect thereon of any increase in the minimum wages paid. The Board shall then endeavor to determine, as directed by statute (chapter 706, Acts of 1912), the minimum wage suitable for a female employee of ordinary ability in the occupation in question, or for any or all of the branches thereof, and also suitable minimum wages for learners and apprentices, and for minors below the age of eighteen years.

5. *Meetings.* — The Board shall meet for organization upon a date fixed by the commission, and may adjourn its deliberations from time to time at its discretion. It shall be appropriate that the initial meetings be of such character as may afford opportunity for the establish-

ment of personal acquaintance and friendly understanding among the members necessary for carrying out the purpose of the Board.

6. *Additional Information.* — The Board may call upon the commission for further investigation, or may request the commission to invite any designated person or persons to confer with the Board. All proceedings of the Board shall be governed by the chairman, subject to the approval of a majority of the Board. Any employer or employee who desires to make a communication to the Board concerning facts pertaining to the industry shall be given an opportunity to be heard.

7. *Rates of Wages.* — The Board shall determine minimum time rates for persons of ordinary ability such as will yield in the course of a normal week the amounts determined by the Board, under the provisions of section 4, to be a suitable minimum wage.

An employer who employs persons on piece rates shall be deemed to pay wages at less than the determined minimum rate unless he can show that the piece rates of wages paid yield, under the actual normal conditions of employment to an ordinary worker, at least the same amount of money as the minimum time rate.

The Board shall also make such special regulations for learners, apprentices and partly incapacitated workers as it shall deem expedient.

8. *Interpretation of Rules.* — Any question upon the construction or interpretation of these regulations shall, in the event of dispute, be referred to the commission for decision.

9. *Report of Determinations.* — When a majority of the members of the Wage Board shall agree upon minimum wage determinations they shall report such determinations to the commission, together with the reasons therefor and the facts relating thereto, and recommendations for the adjusting of the piece-work schedules in the separate establishments to the minimum rate.

10. *Revision of Rules.* — These rules are subject to revision by the commission.

Main Provisions of Minimum Wage Laws in the United States.

THE COMMISSION IS INDENTED TO THE AMERICAN ASSOCIATION FOR LABOR LEGISLATION FOR THE COURTESY OF ALLOWING IT TO REPRINT THE TABLE BELOW.

SUBSTANTIVE FEATURES.								ADMINISTRATION											
								CHIEF ADMINISTRATIVE BODY.				SUBORDINATE BODY.							
State.	Industries Covered.	Employees Covered.	Principle of Wage Determination.	Exceptions for Defectives.	Exceptions for Learners.	Penalty. 1 For Violation. 2 For Discrimination.	Appropriation.	Name.	Personnel.	Appointment and Compensation.	Investigation.		Authority.		Court Review.		Name.	Personnel.	Appointment and Compensation.
											1. Original Inquiry 2. Rehearings.	Powers.	1. To Determine 2. To Enforce.	1. Court 2. Grounds for Setting Aside Ruling.					
California C. 326, Laws 1913 In effect, August 30, 1913	All	Women, and minors under 18	"Necessary cost of proper living"	Special license, women only, renewable semi-annually.	None.	1. Minimum, \$30, imprisonment for 30 days, or both; (and employee may sue for wage balance). Applies to wage rulings only. 2. A misdemeanor.	\$15,000 annually.	Industrial Welfare Commission	3 persons, 1 a woman (May engage secretary and necessary assistants.)	By governor, for 4 years \$10 a day and expenses	1. By commission, or upon petition. 2. By commission, or upon petition of employers or employees.	Subpoena witnesses, submitter notes, examine books, enter premises. 2. Wage rulings, upon complaint.	1. Minimum wages, maximum hours and conditions of labor. 2. Wage rulings, upon complaint.	1. Supreme court, on questions of law only. 2. If procured by fraud or if the commission acted outside its powers.	Wage board	Equal number representatives of employers and employees, and 1 representative of the commission.	By commission, on complaint.		
Colorado C. 10, Laws 1913 In effect, August 12, 1913	Merchandise, manufacturing, laundry, hotel, restaurant, telephone or telegraph.	Same as California.	"Necessary cost of living" and "financial condition of the business."	Special license, women only.	None.	1. Maximum, \$100, imprisonment for 3 months, or both, (and employee may sue for wage balance). 2. For each offense, \$25.	\$5,000 annually.	State Wage Board	3 persons, 1 labor representative, 1 employer, 1 woman (May engage secretary.)	By governor, for 2 years Expenses up to \$1,500 annually	1. By commission. 2. None provided.	Subpoena witnesses, submitter notes, examine books.	1. Minimum wages. 2. None provided.	1. District court on questions of law only. 2. If unlawful or unreasonable.	None				
Massachusetts C. 266, Laws 1912 In effect July 1, 1913 Am'd C. 336, 675, L. 1913 In effect, Mar. 23, July 1, 1913	All	Same as California.	"Needs of the employees" and "financial condition of the business."	Same as Colorado.	Special rates for learners and apprentices.	1. Commission may publish name in newspapers \$100 for newspapers refusing to publish. 2. For each offense, \$30-\$1,000.	\$7,000 for 1913	Minimum Wage Commission	3 persons, 1 a woman (May engage secretary.)	By governor, for 1 year \$10 a day and expenses.	1. Same as Colorado. 2. Upon petition of employees or employers.	Same as Colorado.	1. Same as Colorado. 2. Its rulings (see "Equality")	1. Supreme judicial court, or superior court. 2. If compliance would prevent a "reasonable profit."	Same as California.	At least 6 representatives of employers, employees, and representatives of public, at least 1 woman.	By commission, on complaint, or on petition of public.		
Minnesota C. 54, Laws 1913 In effect, June 26, 1913	All	Women, and minors under 21	"Living wages"	Special license, women only, limited to 10 per cent of employees in any establishment.	Same as Massachusetts.	1, 2 For each offense, \$10-\$50, or imprisonment for 15 days, or both, (and employee may sue for wage balance).	\$500 annually	Same as Massachusetts.	3 persons: commissioner of labor, 1 employer of women, 1 woman secretary.	Same as Colorado Expenses, a secretary, \$1,000 annually	1. By commission, or at request of 100 employees. 2. By commission, or at request of 1/3 of the employees or employers in an occupation.	Same as Colorado.	1. Same as Colorado. 2. The act.	None, provided.	Advisory board	1-10 representatives of employers, employees, and representatives of public, at least 1 woman.	By commission, on complaint, or on petition of public.		
Nebraska C. 211, Laws 1911 In effect, July 17, 1913	All	Same as California.	"Needs of the employees" and "financial condition of the occupation."	Same as Colorado.	Same as Massachusetts.	1. Commission must publish names in newspapers \$100 for newspapers refusing to publish. 2. For each offense, \$25.	None.	Same as Massachusetts.	1 person: governor, deputy commissioner of labor, professor of political science in state university, 1 citizen of state (1 a woman).	Same as Colorado Expenses	1. Same as Colorado. 2. Same as Massachusetts.	Same as Colorado.	1. Same as Colorado. 2. Same as Massachusetts.	1. District court. 2. If compliance "is likely to endanger the prosperity of the business."	Same as California.	At least 3 representatives of employers, employees, and 1 representative of the public, at least 1 woman.	Same as Massachusetts.		
Oregon C. 61, Laws 1913 In effect, June 2, 1914	All	Same as California.	"Necessary cost of living"	Same as Colorado.	Same as Massachusetts.	1. \$5-\$100, imprisonment 10 days to 6 months, or both, (and employee may sue for wage balance). 2. \$25 fine.	\$3,500 annually	Same as California.	3 persons: 1 representative of employing class, 1 of employed class, 1 of public (May engage secretary.)	Same as Massachusetts Expenses.	1. Same as Colorado. 2. None provided.	Same as Colorado.	1. Same as California. 2. All rulings.	1. Circuit court, on questions of law only. 2. All rulings.	Conflictor	Not more than 1 representative of employers, 1 of employees, 1 of public and 1 or more manufacturers.	By commission, on complaint, or on petition of public.		
Utah C. 61, Laws 1913 In effect, May 15, 1914	All	"Females"	Expenses of adults, \$1.25 a day, fixed by act.	None.	Females under 18, 75 cents a day, adult females and apprentices 90 cents a day, fixed by act.	1. A misdemeanor. 2. \$25 fine.	No special provision.	Commissioner of Immigration, Labor and Statistics	1. A misdemeanor.	By governor, with consent of senate, for 2 years \$100 and \$500 expenses annually		1. None. 2. Same as Massachusetts.	None	None.					
Washington C. 154, Laws 1913 In effect, June 15, 1914	All	Same as California.	Same as Oregon.	Same as Colorado.	Special license, with time limit fixed by commission.	1. \$25-\$100, (and employee may sue for wage balance). 2. For each offense, \$25-\$100.	\$5,000 annually.	Same as California.	3 persons: commissioner of labor, 1 disinterested citizen. (May engage secretary.)	Same as California Expenses	1. Same as Colorado. 2. Same as Massachusetts.	Same as Colorado.	1. Minimum wages and conditions of labor. 2. Same as California.	1. Supreme court, on questions of law only. 2. Same as California.	Same as Oregon.	Equal number of representatives of employers and employees, and 1 representative of the public.	By commission, on complaint, or on petition of public.		
Washington C. 154, Laws 1913 In effect, August 1, 1913	All	Women and minors	"A living wage"	Special license, women and minors.	Minors in a "trade industry" must be indentured.	1. For each offense, \$10-\$100. 2. For each offense, \$25.	General for Industrial Commission.	Industrial Commission	3 persons (May engage assistants.)	By governor, with consent of senate, for 4 years \$500 annually, and expenses	1. By commission, or upon complaint. 2. No special provisions.	Same as California.	1. Minimum wages, maximum hours and conditions of labor (C. 155, L. 1913). 2. Wage rulings, upon complaint, other rulings directly.	1. Circuit court, on questions of law only. 2. If unlawful or unreasonable.	Advisory board	See early for general regulations for employers and the public.	By commission, on complaint, or on petition of public.		

1 The penalty for discrimination is for the employer who "discriminates in any way discriminates against any employee because such employee has testified, or is about to testify, or because the employer believes that the employee may testify, in any investigation or proceeding" relative to the enforcement of the act.

2 In all cases the functions of the subordinate body are advisory only, its operations are confined to the industry in question, and its rules of procedure are determined by the commission.

3 The California law is the only one which forbids the commission to act as a board of arbitration during a strike or lockout.



SECOND ANNUAL REPORT

OF THE

MINIMUM WAGE COMMISSION

OF

MASSACHUSETTS.

FOR THE YEAR ENDING DECEMBER 31, 1914.

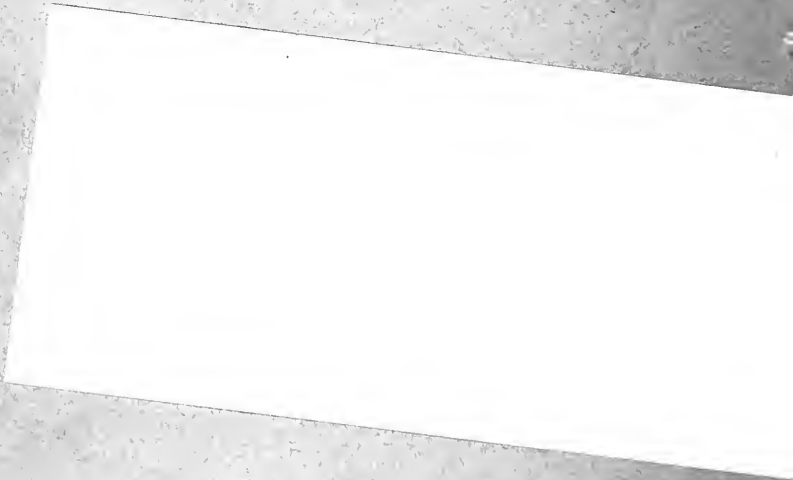
ERRATA

Table I. (a), page 76, Shaking, "\$4 and under \$5" column, 3.3 per cent. should read 33.3 per cent.

Table IV, page 80, Establishment 2, "Under \$5" column, 33.3 per cent. should read 3.3 per cent.



BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
32 DERNE STREET.
1915.



SECOND ANNUAL REPORT

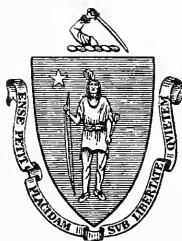
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APPROVED BY
THE STATE BOARD OF PUBLICATION.

CONTENTS.

	PAGE
MEMBERS OF THE COMMISSION,	5
REPORT OF THE COMMISSION: —	
Change in the Personnel,	7
Summary of Activities,	7
Increases in Wages in the Brush Industry,	8
The Wage Board for the Confectionery Industry,	13
The Laundry Investigation and the Laundry Wage Board,	15
The Retail Store Investigation,	15
Recommended Legislation,	17
Necessity for an Increased Appropriation,	19
REPORT OF THE SECRETARY: —	
Wages of Women in Candy Factories in Massachusetts,	20
Wages of Women in Laundries in Massachusetts,	52
Wages of Women in Retail Stores in Massachusetts,	89
Financial Statement,	149
APPENDIX NO. 1: —	
Act to establish a Minimum Wage Commission,	153
APPENDIX NO. 2: —	
Minimum Wage Determinations in Effect in the United States, December, 1914,	157

MEMBERS OF THE COMMISSION.

ROBERT E. BISBEE, *Chairman*

ARTHUR N. HOLCOMBE.

MABEL GILLESPIE.

AMY HEWES, *Secretary.*

The Commonwealth of Massachusetts.

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Massachusetts Minimum Wage Commission herewith respectfully submits the following report, covering the year ending Dec. 31, 1914. To it is appended the report of the secretary, summarizing the work carried on during the year and containing an analysis of the results obtained, together with other information regarding the work of the commission.

CHANGE IN THE PERSONNEL OF THE COMMISSION.

On the 1st of September, 1914, Mr. H. LaRue Brown, chairman of the commission since it took up its work on July 1, 1913, resigned from the commission in order to be able to give full attention to his new duties as special assistant to the Attorney-General at Washington, D. C. The Governor and Council appointed to succeed him the Rev. Robert E. Bisbee of South Middleborough, who assumed his duties as chairman in November, 1914. Mr. Arthur N. Holcombe was reappointed a member of the commission for a term of three years.

SUMMARY OF ACTIVITIES FROM JAN. 1, 1914, TO DEC. 31, 1914.

The appropriation, made by the Legislature of 1914 for the work of the commission during the fiscal year ending Nov. 30, 1914, was \$18,900. This amount made possible the following activities: the continuance of the sessions of the wage board for the brush industry until wage determinations were reached, and succeeding reinspections of the pay rolls

of brush factories after the determinations went into effect; the completion of the commission's study of the wages of women in the confectionery industry, and the establishment of a wage board to consider the matter of increases in wages for that industry; a study of the wages paid to women laundry workers in this State, and the formation of a laundry wage board; the formation of a wage board for the corset industry; and an extensive study of wages, management and unemployment in retail stores, undertaken in co-operation with the United States Bureau of Labor Statistics.

INCREASES IN WAGES IN THE BRUSH INDUSTRY.

A summary of the findings of the commission for the brush industry is given in the first annual report of the commission, published in January, 1914. As stated in this report, it was found that almost exactly two-thirds of the brush workers for whom wage records were available received an average of less than \$6 a week. At the conclusion of this study of the brush industry, the commission was convinced that the wages paid to a substantial number of the female employees in that industry were inadequate to supply the necessary cost of living and maintain the worker in health, and a wage board for that industry was therefore established. The wage board, composed of six representatives of the employers, six representatives of the employees, and three, including the chairman, Mr. Robert G. Valentine, from the public, began its sessions in December, 1913, and continued them until June, 1914. As directed by statute, the board took into consideration the cost of living for women workers in the brush industry and the financial condition of the industry as a whole. With regard to the needs of the employees, the following statements are made in the report of the Brush Makers' Wage Board to the Minimum Wage Commission, March 17, 1914, as summarized in Bulletin No. 3 of the commission:—

Lodging at the lowest level of decency cannot be found in Boston for less than \$1.50 per week. A minimum cost for food is at least \$3 a week. If one has the courage to go little beyond keeping warm and dry, it cannot be done for less than \$15 a year, or \$7 cents a week. For the preservation of health, average expenditures of \$8.75 per year,

or 17 cents a week, seem an irreducible minimum. Car fare requires at least 60 cents a week. The total budget so built up is:—

	Per Week.
Lodging,	\$1 50
Food,	3 00
Clothing,	87
Car fare,	60
Other,	17
Total,	\$6 14

This figure assumes ideal conditions, and is purely theoretical. It allows nothing for laundry, for reading other than in public libraries, for recreation, for church, for savings or for insurance of any kind. At least these items must be added:—

	Per Week.
Laundry,	\$0 20
Church,	10
Newspapers (Sunday and every other day),	08
Vacation (one week per year at \$10),	19
Picture show (once in two weeks),	05
Theatre (once in two months at 25 cents),	04
Clothing (an addition of \$25 per year),	48
Food,	50
Lodging and extras,	50
Total,	\$2 14

The lowest total for human conditions for an individual in Boston is thus seen to be \$8.28. This amount is lower than that of \$8.71, tentatively arrived at by the board early in its proceedings. It makes no allowance for savings or insurance, and is not therefore a true living wage. Allowing for variations between individuals, the wage board is convinced that the sum required to keep alive and in health a completely self-supporting woman in Boston is in no case less than \$8, and in many cases may rise to \$9 or more.

The wage board made a preliminary report on March 17, 1914, containing a study of conditions in the industry and a statement of the principles by which the majority of the wage board was guided in reaching its determinations. On June 12, 1914, a final report was adopted and submitted to the commission. The determinations of the wage board were as follows:—

Determinations.

1. The rate to go into effect at once shall be 15½ cents an hour. At the end of a year's time the rate shall automatically become 18 cents an hour, unless in the meantime the representatives of the man-

ufacturers have brought such evidence before the board as to justify the board in recommending to the Minimum Wage Commission a lower rate than an 18-cent rate.

2. The rate for learners and apprentices shall be 65 per cent. of the minimum for one year, and the period of apprenticeship shall not be more than one year.

3. These findings shall apply to all minors.

4. The previous report of the Brush Makers' Wage Board shall be submitted to the Minimum Wage Commission as the board's idea of the general direction that minimum wage findings should take.

5. In the case of piece workers, if in any case the piece rate yields less than the hourly minimum for time workers, that same hourly minimum must be paid.

To this report the commission gave its tentative approval, and after a public hearing, as required by law, it issued the following decree on Aug. 3, 1914: —

1. The lowest time wage paid to any experienced female employee in the brush industry shall be $15\frac{1}{2}$ cents an hour.

2. The rate for learners and apprentices shall be 65 per cent. of the minimum, and the period of apprenticeship shall not be more than one year.

3. These findings shall apply also to all minors.

4. If in any case a piece rate yields less than the minimum time rate, persons employed under such rate shall be paid at least $15\frac{1}{2}$ cents an hour.

5. This decree shall take effect on Aug. 15, 1914, and shall remain in effect until altered by the commission.

A second inspection of the pay rolls of the brush factories in the State was made in the months of November and December, 1914. Twenty-three establishments were inspected, including all brush factories in the State known to be employing women, and record was made of all employees receiving less than the prescribed minimum rates. A summary of the results of the inspections is as follows: 11, including all of the larger establishments in the State, were found to be complying with the decree; in 5 other establishments violations were found; 2 others claimed that they were paying the prescribed rates, but could produce no record of hours worked to prove their case; 4 employed no women at the time of inspection, and 1 had been merged in another concern. Out

of approximately 1,000 women and female minors employed, the total number who were found to be receiving less than the minimum rate was 18.¹

The effect of the establishment of the minimum wage on the wages of women employed in the brush industry may be estimated by an examination of the wage data published in Bulletin No. 1, issued by the Minimum Wage Commission in January, 1914. The great majority of the female employees in the brush industry were shown to be employed normally not less than forty-two nor more than fifty hours a week. If the average number of working hours per week be taken as forty-five, a minimum wage of $15\frac{1}{2}$ cents an hour should yield average weekly earnings of $\$6.97\frac{1}{2}$ or roughly \$7 a week. But during the period covered by the preliminary investigation of the commission, the average weekly earnings of two-thirds of the female employees were less than \$6 a week. Therefore the increase of earnings for most of the women in the brush industry, if they have been employed no less steadily since the establishment of the minimum than before, should be about \$1 or more a week.

Whether or not all of this potential increase of earnings has actually been obtained depends upon the amount and regularity of employment since the minimum went into effect as compared with conditions a year ago. The commission has investigated an alleged increase of unemployment since the minimum went into effect, and is convinced that the amount of employment during the last four months has probably been somewhat less than during the period covered by its first investigation a year previous. The following reasons for the decrease of employment have been advanced by brush manufacturers: (1) the reduction of the tariff; (2) the war in Europe; (3) the competition with prison labor; (4) the pressure of increased labor legislation in general; and (5) the minimum wage.

Statements made by the employees also throw light upon the varying effects of the decree. Employees who are in receipt of wages determined according to the new rates show

¹ This number does not include four cases of violation which were claimed by the employers to have been due to their own misunderstanding of the decree, and which they promised to remedy at once.

themselves very appreciative of the change. Others, thrown out of work either as a result of the new schedule or on account of the general industrial depression, have supplied impressive accounts of ensuing hardships. In some factories they describe an increased amount of "speeding-up." One worker, who instances a serious case of unemployment resulting, as she believes, from the establishment of a minimum wage, nevertheless entreats the attention of the commission for another industry, the low wages and hardships of which she describes.

An impartial judgment, as to what part of the unemployment in the brush industry is due to setting new rates for that industry, is difficult at the present time, only four months from the date when they went into effect. The commission is of the opinion, however, that the unemployment is mainly due to the general business depression rather than to the readjustment within the industry resulting from the fixing of a minimum wage. Statements have been publicly made by brush manufacturers that the principal hardship to their industry during the present war is the difficulty of obtaining bristles from abroad, owing to the interference with the trade with certain foreign countries. Since American bristles are of such a quality that they can seldom be used in brush-making, the interruption of the foreign supply might be an important cause of existing unemployment. Add to this the fact that unemployment is apparently prevalent to an equal degree in other industries in this State, similar in other ways but for which minimum rates have not been fixed, and there is sufficient explanation for unemployment in this industry without ascribing any large amount of it to the operation of the minimum wage. The commission regrets exceedingly that a disturbance in industry from other causes should have coincided with the establishment of the new rates, not only on account of the hardships to individual workers, but because the coincidence gives to those averse to the raising of wages by this means an opportunity of ascribing to the minimum wage system the difficulties which are actually traceable to other sources.

THE WAGE BOARD FOR THE CONFECTIONERY INDUSTRY.

The statistical study of wages of women in the confectionery industry in this State was completed early in the year 1914. The findings in this study may be briefly summarized as follows: —

Almost half of the total number of candy workers earned less than \$5 a week, — 1,629 out of 3,326, or exactly 49 per cent. . . . Nearly a quarter, or 23.1 per cent., earned less than \$4 a week; 16.2 per cent. earned as much as \$7 a week. These percentages show very low earnings for the group of workers as a whole, but the variation in the different occupations is marked.

. . . It may be said in general that the ordinary candy worker is less than twenty-five years old; earns under \$6 a week; works on an average less than forty-six hours; lives at home; and is out of work twenty or more weeks during the year.¹

In the light of this analysis of the wage situation of women workers in the confectionery industry, the commission became convinced that a substantial number of women in that industry were receiving wages which were inadequate to supply the necessary cost of living and to maintain the worker in health, and voted to establish a wage board for the industry. The board, like that for the brush industry, is composed of six representatives of the employers, six representatives of the employees, and three members, including the chairman, Mr. William C. Ewing, representing the public. The board began its sessions in May, 1914, and is still sitting. In order to be able to give full attention both to the cost of living for the workers on the one hand and the financial condition of the industry on the other, the board has appointed special subcommittees to study these matters in detail. This industry has not suffered from the present industrial situation, by the limitation of its supply of raw material, to such an extent as the brush trade, but at the same time it feels sharply the results of business depression.

An analysis of the material in the confectionery industry

¹ Extracts from *Wages of Women in the Candy Factories in Massachusetts*, pp. 35 and 42 of this report.

gathered by the commission is published on pages 35 to 42 of this report. In addition, the commission was enabled, through the co-operation of the American Association for Labor Legislation, to make an intensive study of the full-time hours and rates of pay of candy workers as compared with their actual working time and their actual earnings. Miss Emilie J. Hutchinson was employed for three weeks by the American Association for Labor Legislation to work upon data gathered by the commission, for the purpose of making a statistical study and charts of the material described. The results of this work, as compared with a similar study of the confectionery industry in the State of New York, will appear in a forthcoming report of the New York State Factory Investigating Commission.

The results of this work, in so far as they pertain to the three large factories in Massachusetts for which the requisite amount of information was available, indicate fairly large discrepancies between the running time of the factories and the number of hours actually worked by the employees. In only two or three weeks during the busy season, when a large number of employees report overtime, do the actual number of hours worked come up to a normal running time. This suggests that a slightly smaller number of workers might be employed for full time rather than a large number of workers for short time. The fact that there is a general tendency to work less than full time is also reflected in the earnings, which, as has been noted in every wage study made by this commission, in almost every case are smaller than the scheduled rates of pay. Neither in this nor in any other connection does the commission advocate the "make-work" policy, but on the contrary always advocates the management of the industries concerned in such manner as to give every employee the possibility of full weeks' employment at a living wage, rather than low wages and shorter time for a larger number. The commission is not prepared to say that the tendency to employ large numbers for short time rather than a smaller force for full time is in all cases a consciously defined policy; it does, however, give it as its

opinion that a plant in which there are large numbers of persons working steadily, week after week, for short time, is one in which the question of more efficient management should be given careful attention.

THE LAUNDRY INVESTIGATION AND THE LAUNDRY WAGE BOARD.

The investigation of the wages of women in laundries in Massachusetts was begun by the commission in January, 1914. The results of the inquiry are described in the report of the secretary of the commission under the title "Wages of Women in the Laundries in Massachusetts." In the opinion of the commission the wages paid to women in the laundry industry warranted the establishment of a wage board for that industry. According to its usual practice the commission held meetings for laundry workers in the large cities of the State, at which the law was explained to the workers, and they were asked to nominate persons whom they wished to represent them on the board. Similar requests were addressed to the employers and to the Massachusetts Launderers' Association. From the nominations thus made the commission chose for the board six employers, six employees and a chairman, Judge Edward L. Logan, to represent the public. The board began its sessions in September, 1914, and is still sitting. It has appointed a subcommittee for the purpose of obtaining fuller information with respect to the cost of living for women in laundries in various parts of the Commonwealth.

THE RETAIL STORE INVESTIGATION.

The wages, conditions of work, and manner of life of the department store girl are matters of great importance in a State which employs 16,817 women in the occupation of selling goods.¹ According to the general opinion, supported by studies of the situation in this and other States, the wages of many women employees in stores are too low to insure health and efficiency. Therefore the commission

¹ United States, thirteenth census, Vol. IV., p. 474.

decided to undertake an investigation of as large a proportion of the retail stores in the principal cities in Massachusetts as its financial resources would permit. The results of this investigation appear on pages 89 to 148 of the report of the Secretary. The previous methods of studying particular industries have been followed with some slight modifications necessary on account of the character of the material. The agents of the commission have obtained in all nearly 10,000 wage records for girls in large department stores, smaller retail stores, and a group of five-and-ten cent stores. The report contains a statement of the activities of the United States Bureau of Labor Statistics in its co-operation with the commission in the retail store investigation.

The opportunity for co-operation with the United States Bureau of Labor Statistics has been a particularly valuable one. The Bureau has just finished a study of wages, conditions of work and unemployment in retail stores in Indiana,¹ and was attracted to the same field in Massachusetts because of the importance of the problems of wages and unemployment in this State, and because this commission was already at work in the field of retail stores. The Bureau of Labor Statistics began its work in this State early in October of this year, and is still carrying on its investigation. The work is supervised by Miss Marie Obenauer of the Bureau of Labor Statistics, and is under the immediate direction of Miss Frances Valentine.

The commission has followed its usual practice of transcribing pay-roll records, has undertaken in addition a study of retail store management, and has given to the Federal Bureau the resources for making an extended study of unemployment in the stores. The agents of the Bureau were able to obtain offices in the same building with the commission, and the work is being carried on with the fullest co-operation. The results of the Bureau's study are not yet ready for publication, but a statement concerning its part of the work is found on pages 92 and 93 in the report of the secretary of the commission.

¹ United States, Bureau of Labor Statistics, Bulletin No. 160.

RECOMMENDED LEGISLATION.

The experience of the year has made it evident that additional legislation is necessary in order to facilitate the performance of the duties of the commission as prescribed in the present law. Section 6 of chapter 706 of the Acts of 1912, as amended in 1913 and 1914, requires that the commission "shall at such times and in such manner as it shall deem advisable, publish the facts, as it may find them to be, as to the acceptance of its recommendations by the employers engaged in the industry to which any of its recommendations relate." The commission has been able to ascertain the facts as to the acceptance of its recommendations only in those cases in which employers have kept records of hours worked as well as records of amounts paid to women and minor employees, since the wage determinations are in the form of prescribed hourly rates. The commission therefore recommends the following legislation requiring employers to keep records of hours worked by women and minors in their employ:—

AN ACT TO PROVIDE FOR RECORDS OF HOURS OF EMPLOYMENT OF
WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. Section eleven of chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended by chapter three hundred and thirty of the acts of the year nineteen hundred and thirteen and chapter three hundred and sixty-eight of the acts of the year nineteen hundred and fourteen, is hereby further amended by inserting after the word "minor", in the fourth line, the words:—and a record of the hours worked by each of such employees each day,—so as to read as follows:—*Section 11.* Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and a record of the hours worked by each of such employees each day, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission

shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 2. This act shall take effect upon its passage.

The process of forming wage boards necessitates the dissemination of information among employees concerning the terms of the law, the obligation of the employees to nominate representatives to serve on the boards, and other pertinent information such as the decrees of the commission. The only effective way in which the large body of employees may be reached is through posting notices in the establishments in which they work. The commission therefore recommends the following legislation to provide for posting necessary information for the employees:—

AN ACT TO PROVIDE FOR THE POSTING OF INFORMATION IN PLACES
OF EMPLOYMENT.

Be it enacted, etc., as follows:

SECTION 1. The Minimum Wage Commission may require employers to post in conspicuous positions in their places of employment such notices as the said commission may issue for the information of employees.

SECTION 2. This act shall take effect upon its passage.

Increasing interest throughout the country in minimum wage legislation has resulted in a larger demand for copies of the annual report of the Massachusetts commission than it has been able to satisfy. The adoption of the following legislation increasing the number of copies published is therefore urged by the commission:—

AN ACT RELATIVE TO THE ANNUAL REPORT OF THE MINIMUM WAGE
COMMISSION.

Be it enacted, etc., as follows:

SECTION 1. There shall be published annually two thousand five hundred copies of the annual report of the Minimum Wage Commission, one thousand five hundred of which shall be for the use of the Minimum Wage Commission.

SECTION 2. This act shall take effect upon its passage.

NECESSITY FOR AN INCREASED APPROPRIATION.

The appropriation for the year 1914 was \$18,900. This amount did not permit a proper extension of the work of the commission. It allowed the study of the wages of women in only three industries, only one of them a large industry, and the maintenance of three wage boards. While the commission is of the opinion that the work carried on is and will continue to be of great value to the Commonwealth, it cannot but recognize the fact that only an extremely small part of the task set for it as a minimum wage commission has been accomplished or can be accomplished until the sums placed at its disposal for the study of the industrial situation and the maintenance of wage boards are increased. If the commission is to perform promptly and thoroughly the duties which the Legislature which passed the minimum wage law expected it to perform, the appropriation for the year 1915 must provide for the increase of its activities.

For the year 1915 the commission is asking for an appropriation of \$38,380. The items included in this estimate cover the collection of wage records for new industries, the maintenance of wage boards for these industries, the continuance of the sessions of wage boards now at work, the reinspection of establishments in industries for which minimum rates have been decreed, and proportionate necessary increases in the running expenses of the commission. In the opinion of the commission the requested appropriation of \$38,380 represents the minimum upon which previous obligations may be carried on, new duties undertaken, and the whole performed with promptness and efficiency.

Respectfully submitted,

ROBERT E. BISBEE,
MABEL GILLESPIE,
ARTHUR N. HOLCOMBE,

Minimum Wage Commission.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following report of the investigations into the wages of women in the candy factories, laundries and retail stores of this Commonwealth, and a summary of the expenditure of the appropriation for 1914 granted by the General Court.

WAGES OF WOMEN IN THE CANDY FACTORIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The development of the confectionery industry in this country has been largely within the last sixty years. Before 1845 the manufacture of candies or sweets was carried on in crude and simple fashion, to which the English confectionery methods were markedly superior. In 1845 Sebastian Chaveau¹ of Philadelphia, who was the first confectionery manufacturer in America to make gum drops, jujube paste and lozenges, imported the first revolving steam pan, and in 1846 Oliver R. Chase of Boston invented and constructed a machine for making lozenges. The invention of machinery for manufacturing candy gave a great impulse to the development of the industry in this country. A stimulus to the European trade came with the international exposition in London in 1851, at which the methods of London confectioners were displayed. The trade spread to Germany and France, and the latter country soon excelled in the manufacture of chocolates and bonbons.

During this period the United States imported an increasing amount of confectionery. Up to 1837 the confectionery

¹ A. T. Hayward, Confectionery Trade in America, *Encyclopedia Americana*.

imports are classed with sugars, so that the actual value of the confectionery brought into this country before that time is not ascertainable. From 1837 to 1847 the imports amount to about 12,000 pounds, valued at approximately \$1,400. From 1847 to 1857, 258,374 pounds were imported, valued at \$34,447.¹

The manufacture of confectionery in the United States after 1850 is summarized in the following table.² The classification covers candy and confections, popcorn balls, chewing gum, salted nuts and stuffed dates. It does not include the operations of establishments making primarily chocolate and cocoa.

YEAR.	Number of Establishments.	Wage Earners (Average Number).	Wages.	Cost of Materials.	Value of Products.	Value added by Manufacture.
1909, . . .	1,944	44,638	\$15,615,388	\$81,150,773	\$134,795,913	\$53,645,140
1904, . . .	1,348	36,239	11,699,257	48,810,342	87,087,253	38,276,911
1899, . . .	962	26,866	8,020,453	35,354,208	60,643,946	25,289,738
1889, . . .	2,921	21,724	7,783,007	31,116,629	55,997,101	24,880,472
1879, . . .	1,450	9,801	3,242,852	17,125,775	25,637,033	8,511,258
1869, . . .	949	5,825	2,091,826	8,703,560	15,922,643	7,219,083
1859, . . .	541	2,340	688,423	2,990,186	5,361,100	2,370,914
1849, . . .	383	1,733	458,904	1,691,824	3,040,671	1,348,847

It will be noted that by 1859 the value of the product had increased 76.3 per cent.; by 1869 it had increased 197 per cent., the highest per cent. of increase attained in any one ten-year period; in 1879 the increase in the value of the product over that of 1869 was 61.1 per cent.; in 1889 we find a 118.4 per cent. increase; in 1899, 8.3 per cent., and in 1909, 122.3 per cent. In short, in the fifty years since 1859, when the industry was already well started, the value of the annual product has increased 2,414.3 per cent., and at the same time the average number of workers employed has increased 1,807.6 per cent. The industry, which at the time of the last census had an

¹ A. T. Hayward, Confectionery Trade in America, Encyclopedia Americana.

² United States, thirteenth census, Vol. VIII., p. 383.

annual output valued at \$134,795,913, ranks thirty-eighth¹ among the industries of the country' when rated according to the value of the annual product. Since 1899 it has risen from forty-second place. This increase in the production of confectionery in this country has been accompanied by a corresponding increase in the exports. In the twenty-five years ending June 30, 1913, the value of the confectionery exported from this country has increased from \$155,521² to \$1,282,196,³ or 724.4 per cent. The increasing popularity of American-made candies is evidenced by the fact that imports show no corresponding increase. For the same period the value of confectionery imports increased from \$24,590³ to \$240,669, or an increase of 878.7 per cent.⁴

No single factor can explain the phenomenal increase in the production and consumption of candy in this country. Unlike many other modern products, the development of which has been recent and rapid, candy is not a substitute for some article now discarded. It is a luxury which has been superimposed upon the list of food products, presumably neither on account of its value as nourishment, nor its cheapness as a substitute for other food products, and has made a new place for itself within which are embraced the demands of people of all grades of economic positions. Rich and poor alike consume candy in large quantities. The quality and price of the product consumed varies greatly with the two extremes, but it is to be doubted whether the per capita consumption shows as great variation in amount. The per capita consumption of sugar in this country in 1912 was in excess of 82 pounds,⁵—about five times that of the average European,⁶ and nearly five times that in this country in 1865. The greater part of this unusual degree of consumption of sugar is traceable to the large annual output of candy in this country.

¹ United States, thirteenth census, Vol. VIII., p. 46.

² United States, Treasury Department, Summary Statement of Imports and Exports of United States, June, 1888, pp. 6, 11.

³ United States, Department of Commerce, Monthly Summary of Commerce and Finance of United States, June, 1913, p. 1325.

⁴ United States, Department of Commerce, Commerce and Navigation of the United States, Advance Sheets, 1913.

⁵ United States Statistical Abstract, 1912, p. 593.

⁶ Bailey Willard, Our Great Sugar Debauch, "Technical World," January, 1913.

In this increasing production of confectionery, Massachusetts takes second place, producing 11.3 per cent.¹ of the total for the country rated by the value of the product, New York stands first, with nearly one-fifth of the total value, and Pennsylvania third, with one-tenth. According to the census figures for 1909, Massachusetts² had 117 establishments employing an average of 5,548 workers, with an annual output valued at \$15,266,453. According to the figures presented in the report of the Massachusetts Bureau of Statistics for 1912,³ three years later, Massachusetts had 116 establishments, an average of 6,794 wage earners, and an annual product valued at \$18,906,800. The following table summarizes the facts for the industry from 1908 (the first year when confectionery was listed separately by the Massachusetts Bureau of Statistics) to 1912.

¹ United States, thirteenth census, Vol. VIII., p. 67.

² *Ibid.*, p. 684.

³ Massachusetts, Bureau of Statistics, Statistics of Manufactures, 1912, p. 4.

Confectionery in Massachusetts, Statistics of Manufactures, 1908 to 1912.

Y <small>EAR</small> .	Estab- lishments.	Capital invested.	Value of Stock and Materials used.	Amount of Wages and paid during the Y <small>ear</small> .	Average Yearly Earnings.	W <small>AGE</small> E <small>ARNERS</small> E <small>MPL</small> O <small>YED</small> .					Value of Product.	
						A <small>VERAGE</small> N <small>UMBER</small> .				Smallest Number.		Greatest Number.
						M <small>ALES</small> .		F <small>EMALES</small> .				
						M <small>ALES</small> .	F <small>EMALES</small> .	Both Sexes.				
1908,	\$328.97	1,342	3,444	4,786	3,611	6,433	\$11,742,517	
1909,	- 2	- 2	- 2	5,548	4,796	6,723	15,266,453	
1910,	346.07	1,558	4,467	6,025	4,644	7,725	16,018,877	
1911,	348.37	1,521	4,547	6,068	4,880	7,533	16,571,484	
1912,	363.03	1,766	5,028	6,794	5,605	8,580	18,906,800	

¹ "Capital devoted to production."

² No figures given.

Statistics of Manufacture (Confectionery).

	CENSUS RETURNS ¹ FOR 1909.		Statistics of Manu- factures for 1912, Massachu- setts.
	United States.	Massachu- setts.	
1. Number of establishments,	1,944	117	116
2. Capital,	\$68,326,471	\$7,371,337	\$9,725,984
3. Value of products,	\$134,795,913	\$15,266,453	\$18,906,800
4. Value added by manufacture (product less cost of materials).	\$53,645,140	\$6,077,935	\$6,568,942
5. Cost of materials used, including fuel and rent of power.	\$81,150,773	\$9,188,518	\$12,337,858
6. Expense (rent, tax, contract, other),	\$13,606,463	\$1,543,438	— ²
7. Salaries,	\$9,137,288	\$1,090,126	— ²
8. Wages,	\$15,615,388	\$1,860,336	\$2,466,409
9. Total cost,	\$119,509,912	\$13,682,418	— ²
10. Profit,	\$15,286,001	\$1,584,035	— ²
11. Employees: —			
Number of salaried officials and clerks, . . .	8,384	755	— ²
Average number of wage earners employed during the year.	44,638	5,548	6,794
Male, sixteen years of age and over, December 15,	18,836	1,703	1,803 ³
Female, sixteen years of age and over, December 15.	30,453	4,140	3,960 ³
Female, under sixteen years of age, December 15,	2,581	577	1,832 ⁴

¹ United States, thirteenth census, Vol. VIII., p. 518 ff.² Not taken by the Massachusetts Bureau of Statistics.³ This is the number of employees, eighteen years of age and over, December 14.⁴ This is the number of employees under eighteen years of age, December 14.*Manufacture of Confectionery by States.*¹

STATE.	Number of Estab- lishments.	Number engaged in Industry.	Capital.	Value of Product.
Alabama,	9	166	\$121,499	\$489,667
Arizona,	3	21	23,698	28,050
Arkansas,	11	139	120,470	217,159
California,	89	1,410	2,122,501	3,624,045
Colorado,	35	483	579,826	1,023,073
Connecticut,	22	312	331,514	1,233,308
Delaware,	5	91	67,337	142,796
District of Columbia,	15	157	74,472	283,701
Florida,	4	41	23,460	83,310
Georgia,	23	878	901,725	2,171,737

¹ United States, thirteenth census, Vol. VIII., p. 684.

Manufacture of Confectionery by States — Concluded.

STATE.	Number of Estab- lishments.	Number engaged in Industry.	Capital.	Value of Product.
Idaho,	6	42	\$39,483	\$103,179
Illinois,	140	4,622	6,094,450	12,798,077
Indiana,	64	1,134	949,300	2,558,238
Iowa,	40	1,302	1,272,402	2,913,653
Kansas,	27	198	274,643	327,748
Kentucky,	24	827	811,375	2,256,990
Louisiana,	12	249	268,354	709,402
Maine,	28	278	435,404	711,391
Maryland,	54	1,888	2,752,928	5,081,852
Massachusetts,	117	6,398	7,371,337	15,266,453
Michigan,	56	1,335	1,769,809	2,943,761
Minnesota,	39	973	1,176,832	2,345,739
Mississippi,	10	71	111,685	122,511
Missouri,	61	2,337	2,931,362	6,658,986
Nebraska,	18	523	544,529	1,176,039
New Hampshire,	10	41	33,225	79,941
New Jersey,	71	1,558	2,829,775	4,115,533
New York,	249	10,116	11,702,475	25,540,394
North Carolina,	18	139	186,270	344,848
North Dakota,	3	127	206,009	454,516
Ohio,	114	3,012	3,416,317	7,306,574
Oklahoma,	11	64	65,742	114,719
Oregon,	19	408	611,702	1,215,256
Pennsylvania,	251	6,436	8,204,256	13,541,759
Rhode Island,	20	193	201,436	447,527
South Carolina,	11	35	19,856	71,028
South Dakota,	3	136	203,204	400,249
Tennessee,	31	1,086	1,503,918	2,520,070
Texas,	49	967	1,402,332	2,450,513
Utah,	17	745	1,009,257	1,951,863
Vermont,	10	206	245,088	356,206
Virginia,	33	472	693,997	1,525,119
Washington,	52	780	1,608,527	2,208,324
West Virginia,	10	109	96,804	244,270
Wisconsin,	38	2,262	2,835,766	4,414,481
All other States, ¹	12	87	80,120	221,758

¹ Montana, 10 establishments; Wyoming, 2; Nevada, none; New Mexico, none.

METHOD AND SCOPE OF THE INQUIRY.

The study of candy factories by this commission was made in the winter of 1913-1914. It included 14 establishments, selected in such a manner as to include nearly all of the important kinds of candy manufacture and several of the most important establishments in the State. In these factories a transcript of the pay-roll records for each female employee was taken for a period covering the fifty-two weeks preceding the date of the investigation. This record in the case of five factories included the record of the number of hours worked each week. In as many cases as possible schedules were also filled out by women workers themselves, in order that the commission might have available such information as age, marital condition, living arrangements, length of experience, and similar items. In addition an inspection of the premises was made for the purpose of studying the occupations. The results of the analysis of the schedule material will be found in the section on the wage situation, page 35, and following sections.

In accordance with the duties of the commission as prescribed by the statute, the inquiry has been limited to ascertaining wages and rates for the various occupations, with such other matters as are most intimately connected with that subject. This procedure necessitated the omission of many subjects which might have proved both interesting and valuable as matters of public knowledge in connection with the wage situation. For example, the matters of overtime, sanitation, accidents, and more detailed information as to the living arrangements and expenses of the women employees, have a definite bearing on the matter of wages in any given employment. Moreover, these matters are under the jurisdiction of other boards and commissions in this State, and certain information concerning them appears from those sources from time to time. Consequently, the material gathered by the commission, limited in scope, comprises the data which in the experience of the commission have proved to be most pertinent and useful in the attempt to improve the wage situation.

THE PROCESS OF MANUFACTURE.

I. *Chocolate-coated Confectionery.*

Preparation of Cream Centers.—The fondant, or base of all candies, is composed chiefly of sugar, glucose and water. This is mixed in copper kettles, heated by gas or steam and cooked to a temperature of about 245° F. The syrup is then passed through a cooler into a receptacle, where it is beaten by revolving paddles or other mechanical device to the consistency of a thick cream which discharges into containers where it is kept for a period of about twenty-four hours. It is remelted in kettles known as cream breakers, and flavorings such as vanilla and coffee, fruit flavors and fruits are added. Some of the creams, coffee and maple, for example, are flavored in the original batch.

Marshmallows are made of the same ingredients, with the addition of egg, albumen and gum-arabic. Special beaters are used for marshmallow creams.

The cream after being melted and flavored is poured into starch molds of the desired shape and size. This process consisted formerly of a series of hand operations, but now in every good-sized factory it is performed by one large machine known as the mogul, which by automatic action fills, levels and prints the starch trays, deposits in each mold the exact quantity of cream desired, and removes all surplus starch from the hardened candies. The operation of this machine is simple and requires the attention of only one regulator and four or five helpers. Over thirty men were formerly required to do the same amount of work. The trays of freshly deposited candy are placed in racks where they remain from three to twelve hours to harden. They are then returned to the mogul, in which the starch is separated from the centers, and the latter brushed clean and fed into wooden trays ready to be carried to the dipping room.

All the work connected with cooking and molding of candies is in the hands of men. A few women are sometimes employed in the cream room to pick over nuts and stone dates to be used in the centers.

The Preparation of the Chocolate. — Although almost all the Massachusetts confectioners buy prepared chocolate, a few manufacture part or all of their own supply. The cocoa beans are imported in sacks, and are first brushed, cleaned and sorted by a machine which separates the poor beans from the good ones and sifts out all foreign matter by a series of sieves and blowers. In a few factories the beans are sorted according to size by women who sit on either side of a chute down which the beans move slowly. This is the only part of the process in which women are concerned. The cocoa beans are then roasted in a container, cooled and cracked, and the hulls blown away by a winnowing machine which removes all dust. The cracked beans, known as nibs, are then put into mills and ground down into liquor without the addition of any water, but later cocoa butter, sugar and vanilla are added. The liquor runs into a steel-lined cauldron equipped with automatic stirring attachments which give it a creamy consistency. It is further refined by being squeezed through rollers and beaten to perfect smoothness. It is next poured into oblong molds and stored in cool rooms. If wanted for immediate use, it is kept in motion in heated cauldrons and conveyed to the dipping room as needed.

The chocolate which is bought outside comes in 10-pound cakes which are broken up in water-jacketed kettles equipped with revolving paddles to keep the melted chocolate from lumping and hardening. From these kettles the chocolate is drawn as required to supply the needs of the dipping room. In some factories it is part of the task of the dipping room floor girls to carry the pails of chocolate, but in general all the work of this department is in the hands of men.

Dipping. — Three methods are employed in coating cream centers, which may be designated by the terms, hand, fork and machine dipping.

Hand dipping is the method most commonly employed in the manufacture of high-grade chocolates. The workers, who are all women, sit in front of long, narrow tables in which are sunk at intervals shallow bowl-shaped tanks containing melted chocolate, which are water-jacketed and

heated from underneath by gas or electricity to a temperature of 90°. At the left of each worker is placed a tray of centers, in front of her a wooden board covered with a piece of glazed paper, and at her right a pile of soft chocolate which she has taken from the tank and which she works over with her hand until she judges it to be of the proper consistency and temperature. With her left hand she picks up a center and throws it into the chocolate, and with her right hand turns and rolls it over until it is completely and smoothly coated, then deftly lifts it out and lays it on the glazed paper. As she withdraws her hand from the piece she makes a "string," "bar" or "curl" on top with a dexterous twist of her fingers. An experienced dipper works very fast, coating from 50 to 100 pounds of chocolates a day, even when the "split work" decoration is an elaborate ornament. The occupation is one in which skill can be acquired only through experience, but some persons show much more ability to learn quickly than others. Workers whose hands are warm and dry are said to be the best adapted to this occupation, as they neither chill nor streak the chocolate, and this is given as one reason why Italian women have been particularly successful as hand dippers. The temperature of the dipping room is kept down to 65° or lower by means of refrigerating pipes in order to keep the chocolate hard enough to handle.

Fork dipping is used everywhere in the manufacture of bonbons, and in a few establishments in the coating of fine chocolates as well. The worker sits at a table having in front of her a tray of centers, a board covered with glazed paper, and a sunken copper bowl heated from underneath containing the liquid chocolate or cream. She throws the center directly into this bowl, and stirs it about with her "fork," which is a loop or prong of wire attached to a long handle. The candy is then lifted out on the fork and quickly turned over and deposited on the glazed paper, the fork leaving an impression on the top of the chocolate which is not unlike a string or twist put on by hand. Fork-dipped chocolates are quite as attractive to the eye as any

of any

26

other kinds on the market, but, probably chiefly for the reason that this method is considerably slower than the old, it has made little or no headway in the large candy factories.

Only one style of machine in use for dipping actually dips the candy into the chocolate. This is the so-called "basket machine." In the other models, the creams are coated by passing under a stream of chocolate falling from above. This method is used in the manufacture of all low-priced chocolates from penny pieces to goods retailing as high as 40 cents a pound. The machine which is almost universally used is known as the enrober. A rectangular steel case contains the heated chocolate tank and the mechanism whereby the process of coating is accomplished. From this case extend on opposite sides two long tables equipped with moving canvas belts. The centers are arranged on the feed table by hand or by an automatic feeder, and travel along until they reach the steel case where they are transferred to a wire belt which carries them inside the enrober. Here they pass under a stream of melted chocolate and are at the same time coated on the bottom by a system of double rolls over which they move at this point. After passing under a fan which blows off the surplus chocolate, the coated centers emerge from the enrober and are transferred from the wire belt on to glazed paper plaques along which they are carried to the end of the delivery table, which extends through an opening in the wall into a cold room beyond. Here the plaques are removed on to boards which are piled on racks until the candy has hardened sufficiently to handle in packing. Several devices have been invented for putting a machine-made "string" on the coated chocolates as they pass out of the enrober, but the decorations thus produced are extremely artificial in appearance, and in the preparation of the more expensive grades girls are often employed to put hand strings on the chocolates as they leave the machine.

A man or boy regulates the mechanism of the machines, but otherwise all those employed in the operation of the

enrober are women. Their work requires little or no skill and consists of arranging centers on the feed belt, making "strings," seeing that the coated candies pass smoothly on to the glazed paper plaques, and removing the plaques and setting them on racks to dry and harden. The girls work standing. The temperature of the enrober room is between 80° and 85°, while that of the cold room is always kept at 60° to 65° by means of refrigerating pipes. The manufacture of machine-coated chocolates has increased enormously within the last few years, but has made as yet no headway in the field of high-priced goods, where a strong prejudice still exists in favor of hand-decorated work. If a device can be perfected whereby hand work may be successfully imitated, it seems probable that the manufacturers will have all grades of goods coated by the enrober.

Helping or Floor Work. — In every dipping room a number of young girls are employed as helpers or floor girls, whose business it is to wait on the dippers. In order that the latter may lose no time at their work the floor girls bring them trays of centers, glazed paper and boards, and see that the tanks of chocolate are replenished. They also carry away the trays of finished goods and set them away on racks to cool. This is the lowest grade of work in a candy factory, but after being employed as floor girls for a few months good workers are usually broken in as dippers or transferred to the plain package room. A few were found, however, who had been employed as floor girls for several years, some of them at a good rate of pay.

Packing. — Chocolates are packed by women, two grades of workers being employed in every large factory, — plain or bulk packers and fancy packers.

A large amount of goods is packed in 5-pound boxes, to be sold to retailers in bulk. The workers stand or sit at a table to which floor girls bring trays of finished chocolates from the dipping room. The boxes are packed in layers with wax paper between each layer. When packed, each box is weighed, covered and tied. This work requires little skill, as usually only one variety of candy is packed in each box. The top layer is always inspected, and in some cases

packed by an experienced worker or "topper." In most large factories the boxes are weighed and tied by a special group of workers.

The fancy boxes of mixed chocolates which are put up to sell at retail are usually packed by another group of workers. Each packer has placed before her trays of 5-pound boxes of all the required varieties. From these she fills her boxes, but instead of standing still and filling one box at a time, she walks about putting one piece at a time in each box. The pieces must be placed in a similar way in each of the boxes according to the arrangement of a model box which has been packed so as to present an attractive appearance, and weigh the exact number of pounds or ounces required. The top layer is brushed, a pair of tongs, a lace paper mat and a square of cotton wadding added, and the package is weighed, wrapped in paper, sealed and tied with ribbon. Fancy packing is an occupation which calls for skilled and experienced workers. In the larger factories box wrapping, tying and bow making are in the hands of a special group of workers, and in some places are even to be found as three separate occupations, especially during the months spent in preparing for the Christmas trade. Women in this group are usually able to sit at their work and often have a little room to themselves, where they can work undisturbed.

From the packing department the goods pass out of the hands of women employees, as the storage and shipping departments of all large factories are entirely in charge of men.

II. *Caramels and Hard Candy.*

Making.—Caramels are made of the same ingredients and in the same way as is cream fondant, with the addition of fresh or condensed cream, but are cooked to a temperature of about 275° F. The hot syrup is then drawn off and poured onto marble or water-jacketed cooling slabs. After the mass has cooled sufficiently it is marked off in squares, and later is cut by machinery.

Hard candy contains a larger proportion of glucose than cream mixtures, and is cooked until all the moisture is well

boiled out. It is then poured onto cooling slabs and "worked" by hand for a while in order that it may cool evenly and contain no air bubbles. If nuts are to be added they are now worked in and the batch is then spread out on the slab and cut or stamped into pieces of the desired shape and size. In the preparation of certain varieties such as ribbon candy, molasses chips, kisses and other chewing pieces, the batch of hot candy is first kneaded for a while in the usual way, and then is pulled out by hand or machine until it is cold.

The making of caramels, hard candy and all other kinds of confectionery besides chocolates is entirely in the hands of men; unskilled women workers are employed as helpers, or "bench girls," from the "bench" or table on which the hard candy is cut or broken up. In some places they are called "strikers" from the fact that they are employed in separating strips of hard candy drops by striking them with a hammer. In addition to this sort of work they do some packing, carry about trays of candy, receive caramels and nougats as they fall from the cutting machines, and attend to a number of miscellaneous tasks none of which requires skill or long experience.

Wrapping and Packing. — In the case of caramels, kisses, nougats, lozenges and a large variety of fancy goods, each individual piece or group of pieces must be wrapped in paraffin paper. Machines, usually run by men, are in use in some factories which attend to a part of this work, but a large share of it is done by hand by women. Each worker sits at a table, and as each piece is wrapped in its square of wax paper it is laid in a box placed in front of her. When the box is full the worker covers it and ties with a string.

METHOD OF TREATING WAGE MATERIAL.

In the preparation of the material for tabulation, all records of persons who appeared on the pay roll for less than four weeks out of the fifty-two under consideration were thrown out. This was done in order that the conclusions reached might apply only to workers who could

legitimately be considered a part of the normal working force of the industry.

In computing weekly earnings and hours worked each week for individual workers, the procedure for each individual was as follows: the sum of all payments made during the fifty-two-week period, that is, the girl's total income from her work for the year, was found. This sum was divided by the number of weeks during which she was actually at work, as indicated by the number of weekly payments made to her. In this way her average weekly income for the time she was at work in the occupation under consideration was ascertained. A corresponding procedure was adopted in treating hours of work. The number of hours worked in the various weeks were totaled, and this sum divided by the number of weeks actually at work. A slight inaccuracy is necessitated by the fact that in some cases girls enter or leave the factory in the middle of a week. Factory records rarely exist, however, to show whether small payments and short hours may be ascribed to this cause or to short-time work. The commission has made it a rule to follow the written record, and has attempted to present the pay-roll figures as found, without omissions or additions due to interpretations of its own.

ANALYSIS OF THE WAGE SITUATION.

Almost half of the total number of candy workers earned less than \$5 a week, — 1,629 out of 3,326, or exactly 49 per cent. (See Table I. (a) and (b).) Nearly a quarter, or 23.1 per cent., earned less than \$4 a week; 16.2 per cent. earned as much as \$7 a week. These percentages show very low earnings for the group of workers as a whole, but the variation in the different occupations is marked. Floor girls, whose work is unskilled and who are the beginners in most of the factories, received the lowest wages. Nearly half of them (48.1 per cent.) received less than \$4 a week. On the other hand, the dippers stand very much above the average for the whole group. They form the only occupation in which less than a third of the workers received under \$5 a week, and they are conspicuous at the other

end of the scale as having a larger per cent. of their workers in the classes earning \$7 and under \$8 and \$8 and under \$9. This highest-paid group is the largest single occupation listed, and forms over 23 per cent. of the whole. Yet the floor girls, nut sorters and miscellaneous workers, where in each case the largest percentage of workers is found in the group under \$4, form together almost as large a proportion (22 per cent.) of the whole number of candy workers. The great majority of candy workers are paid according to a weekly rate. With the exception of a small number of piece workers, most of whom were nut sorters and caramel wrappers, all of those whose records were studied drew pay on weekly rates. But the time workers do not always work for a full week, so that the amounts paid them, like the amounts paid piece workers, are subject to variation from week to week.

Table I. (a) and (c) afford a comparison of the actual weekly earnings of the candy workers as shown by the payroll entries of the amounts paid them each week of the year, and their weekly rates, or the amounts which they are scheduled to earn if they work for the maximum running time of the factory, do not come late, or leave before the factory closes, or incur fines or other deductions. The discrepancy is most striking in the case of the low-paid workers; only 1.2 per cent. of the total working force of all the factories were rated at less than \$4 a week; yet the pay rolls show that 23.1 per cent., or nearly a fourth of the workers, actually averaged less than \$4 a week for the year. Again, only 24.8 per cent. were scheduled to receive less than \$5 a week, while about one-half (49 per cent.) really received less than that amount. Doubtless many of these conspicuous differences between the scheduled rates and the contents of the pay envelopes are to be explained by illness or carelessness and lack of interest on the part of the girls themselves. Some of the discrepancy is due to that element in the working force which is made up of girls who work only for two or three days in a week and then leave the factory, but a very considerable factor in the situation is the shortage of factory work in the dull season,

which sometimes requires, in addition to the general shut-down after Christmas rush and in July, the closing of departments for a day or two at a time.

Age.

The majority of the women candy workers are less than twenty-one years of age. The largest single group, however, consists of women between twenty-one and twenty-five. (See Table II. (a).) About one-third are under eighteen.

Especially with the skilled occupations such as dipping, experienced workers are in demand, and women sometimes stay in the industry five, ten, or fifteen years or more; but on the whole the confectionery industry reflects the general conditions of the industrial life of women, and shows their tendency to drop out of their occupations after a few years of work. The connection between extreme youth and low wages is shown in Table II. (a), but the connection between age and the amount earned weekly is not so clear after the workers have reached the age of twenty-five.

Variation among Establishments.

The amounts of wages paid weekly show a remarkable variation among the different establishments, in view of the fact that several of the factories under consideration are in the same general locality and to some extent draw on the same labor supply. This fact is especially marked in the lower wage groups. (Table III. (a).) For example, establishment No. 10 pays the majority of its workers less than \$4 a week, while establishment No. 1 pays so small an amount to only 11.6 per cent. of its workers, and establishments Nos. 12, 13 and 14 have no workers in this group. It should be said, however, that the last three mentioned are very small and manufacture a high-grade product. Establishments Nos. 12 and 14 also give their employees annual vacations of from one to two weeks with pay, which serves to raise the average weekly earnings recorded for these establishments. Leaving them out of account, no establishment pays 8 per cent. of its workers as much as \$9.

Table III. (b), when compared with Table III. (a), shows the differences between scheduled weekly rates and the wages actually paid by the different establishments. Only three factories engage workers at weekly rates of less than \$4, but eleven factories, or all except three, actually pay less than that amount to many of their workers. One factory, which has no scheduled rates of less than \$4, but which places the majority of its rates between \$4 and \$5, actually pays less than \$4 to more than one-half of its women employees. The differences between the scheduled rates of the different factories are in themselves illuminating with regard to the labor situation, and suggest the same points of interest as arose in examination of the table showing earnings by occupations. For example, establishment No. 1 and establishment No. 2, with approximately the same restrictions on their labor market and the market for their product, offer conspicuously different rates of pay, and the establishment which offers the higher rates continues to carry on business successfully. It has been previously suggested in the discussion of weekly earnings that a possible explanation of such differences may lie in the kind of product manufactured. The question remains as to the degree in which the efficiency of management is influential in determining such variations.

Hours.

A proper consideration of the amounts paid weekly to individual workers involves a knowledge of the average number of hours' work for which the weekly wage was paid. During the three or four months preceding Christmas most of the factories making fine chocolates or other holiday goods usually run their plant for a fifty-two and one-half hour week or longer, but very few of the workers average more than fifty hours a week for the year, and the large majority average less than 46 hours. (Table IV. (a) and (b)). These facts are valuable in showing the extent to which the short time of work may have influenced the amount paid.

Fluctuation of Employment.

Table V. (a) shows the fluctuation of employment among the total number of workers for the twelve months under consideration. Those who worked less than four weeks in the course of the year are excluded from the tabulation; consequently, each occupation shows 100 per cent. who had a full month's employment. The table shows that the greater number of women worked less than the five months out of the twelve. Not all of this majority were unemployed for the other seven months on account of dull periods in the industry; some of them gave up work in candy factories in order to do something else; others entered the factories only a few months before the close of the year. It is not possible, however, to determine why a person's name disappears from the pay roll, or whether or not it will appear again. Consequently, Table V. (a) represents as accurately as possible the fluctuation in employment among the body of workers studied.

The floor girls seem to have been more irregular in their employment than any others. Their work is, of course, unskilled, and they can easily enter the occupation and as readily leave it for promotion or for some other form of unskilled labor elsewhere. The other occupations do not vary greatly from the averages for the whole industry.

A far more surprising degree of variation is shown in the employment percentages for different establishments. Some factories, for instance No. 1, keep more than one-third of their employees at work the greater part of the year; others keep only about a fourth at work for that length of time. These variations depend to some extent upon the kind of product in which the factories specialize. The small establishments, which manufacture only high-grade goods to be retailed on the premises, make an effort to secure skilled permanent workers by the payment of high wages, the offer of regular employment throughout the year, and the practice of giving vacations with pay. The large concerns making a specialty of high-grade chocolates seek to obtain the same result for at least a part of the year through paying

a bonus, usually 10 per cent. of the wages received from the commencement of the busy season in August or September until the 1st of the following January. One company has a profit-sharing system, each employee who has been there for a period of some four months preceding January, 1914, having received 10 per cent. of the total amount received for each full week worked during the year 1913. In general, the table shows that the candy kitchens and those establishments which give a bonus keep their employees longer than other concerns, but this relation is not in every case as marked as might be expected.

Diagram I. presents still another aspect of the problem of irregular employment. The lowest point on the employment curve, that in July, does not mean a dull season only, but indicates the vacation period. On the other hand, the height of the curve at the end of December and early in January corresponds to a clearly marked slack season which follows the Christmas rush. In several establishments the greater number of employees were laid off for a week in July, and in one or two for a part or whole of the week after Christmas.

Bonus System.

The larger factories in Boston and vicinity usually pay their employees a bonus, consisting of a certain per cent. of their wages, at or near the close of the busy season. In most cases the bonus is reckoned as 10 per cent. of the employee's earnings from the beginning of the busy season, usually in August, to the close of the year. If the employee leaves her position, or is frequently absent during the busy season, the bonus is usually forfeited in whole or in part. A slightly different system is that of paying a bonus in February equal to from 3 or 4 to 10 per cent. of the wages for the year. The object of the system is to secure a sufficient labor supply during the busy season, and to keep the force steady. In all cases where records of bonuses were available they were transcribed together with the pay-roll records of payments made to the employees for the fifty-two weeks preceding the inspection, and were used in computing the average weekly wages.

Living Conditions.

Information concerning home conditions was obtained only from those workers employed at the time when the investigation was made, and was therefore available for only 1,595 persons, or 48 per cent. of the whole number for whom wage records were taken. Table VI. shows that only 7.1 per cent. of the total number for whom information was obtained were not living at home. "Living away from home," however, includes only those workers who board entirely alone; all those who live with relatives, however little these latter may be able to contribute to their support, are classed as "living at home." The facts presented in this table might at first sight seem to support either of two conclusions: first, that the prevailing low wages in the industry compel the workers to live at home in partial dependence upon their families, or second, that the tendency to live at home explains the persistence of low wages in the industry, since a labor force, the individual members of which are not dependent wholly upon their wages for support, would be far less liable to demand higher rates than a labor force whose members must make their weekly pay cover the entire cost of living. At the same time, the table shows that the proportion living at home is not noticeably higher among the high-paid workers than among those who receive very low pay; the only definite connection between wages and home conditions which can be traced is in the lower-wage groups; in these it is shown that the percentage of those earning less than \$5 a week is higher among those living at home than among those living away from home. Evidently the low rates of pay cannot be held wholly responsible for the tendency to live at home. Whether or not the influence is in the opposite direction, in other words, whether the tendency to live at home explains the persistence of low wages, cannot be determined from the available information.

Summary of Analysis.

In conclusion it may be said in general, that the ordinary candy worker is less than twenty-five years old; earns under \$6 a week; works on an average less than forty-six hours; lives at home; and is out of work twenty or more weeks during the year.

TABLE I. (a). — *Average Weekly Earnings: by Occupations.*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING --														TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Dipping,	101	12.8	131	16.7	124	15.8	131	16.7	141	17.9	114	14.5	44	5.6	786	100
Plain packing,	105	17.8	162	27.5	142	24.1	103	17.5	42	7.1	22	3.8	13	2.2	589	100
Fancy packing,	103	17.5	167	28.4	155	26.3	98	16.6	47	8.0	14	2.4	5	.8	589	100
Machine tending,	78	22.7	109	31.6	95	27.6	45	13.1	11	3.2	4	1.2	2	.6	344	100
Floor work,	140	48.1	74	25.4	54	18.6	17	5.8	6	2.1	-	-	-	-	291	100
Candy wrapping,	67	23.5	73	25.6	56	19.7	44	15.4	12	4.2	16	5.6	17	6.0	285	100
Nut sorting,	24	42.1	21	36.8	9	15.8	3	5.3	-	-	-	-	-	-	57	100
Miscellaneous,	150	39.0	124	32.2	50	13.0	32	8.3	17	4.4	10	2.6	2	.5	385	100
Total,	768	23.1	861	25.9	685	20.6	473	14.2	276	8.3	180	5.4	83	2.5	3,326	100

TABLE I. (b). — *Average Weekly Earnings: by Occupations (Cumulative).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Dipping, . . .	12.8	29.5	45.3	62.0	79.9	94.4	5.6
Plain packing, . . .	17.8	45.3	69.4	86.9	94.1	97.8	2.2
Fancy packing, . . .	17.5	45.8	72.2	88.8	96.8	99.2	.8
Machine tending, . . .	22.7	54.4	82.0	95.1	98.3	99.4	.6
Floor work, . . .	48.1	73.5	92.1	97.9	100.0	100.0	—
Candy wrapping, . . .	23.5	49.1	68.8	84.2	88.4	94.0	6.0
Nut sorting, . . .	42.1	78.9	94.7	100.0	100.0	100.0	—
Miscellaneous, . . .	39.0	71.2	84.2	92.5	96.9	99.5	.5
Total, . . .	23.1	49.0	69.6	83.8	92.1	97.5	2.5

TABLE I. (c). — *Weekly Rates: by Occupations.*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —																TOTAL.	
	\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.					
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.		
Dipping,	6	.8	124	15.8	109	13.9	109	13.9	153	19.5	200	25.6	82	10.5	783	100		
Plain packing,	—	—	116	20.0	198	34.2	118	20.4	82	14.2	41	7.1	24	4.1	579	100		
Fancy packing,	3	.5	95	16.3	203	34.7	140	24.0	95	16.3	37	6.3	11	1.9	584	100		
Machine tending,	2	.6	93	27.5	99	29.3	103	30.5	29	8.6	7	2.0	5	1.5	338	100		
Floor work,	5	1.7	175	60.4	67	23.1	32	11.0	9	3.1	2	.7	—	—	290	100		
Candy wrapping,	3	2.1	48	34.0	40	28.4	18	12.8	30	21.3	2	1.4	—	—	141	100		
Nut sorting,	—	—	21	65.6	10	31.3	1	3.1	—	—	—	—	—	—	32	100		
Miscellaneous,	20	5.2	112	29.3	125	32.7	65	17.0	43	11.3	13	3.4	4	1.1	382	100		
Total,	39	1.2	784	25.1	851	27.2	586	18.7	441	14.1	302	9.7	126	4.0	3,129	100		

NOTE.—Of the total 3,326 persons whose records were studied, weekly rates were not available for 197 persons, of whom 78 were piece workers and 16 were both time and piece workers.

TABLE II. (a). — *Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
14 and less than 16, .	43	66	17	2	1	—	—	129
16 and less than 18, .	17	127	131	51	21	6	—	353
18 and less than 21, .	5	62	117	101	55	31	14	385
21 and less than 25, .	10	53	109	98	63	68	37	438
25 and less than 30, .	6	17	24	34	25	28	10	144
30 and less than 35, .	2	5	10	12	8	13	9	59
35 and less than 40, .	—	8	6	8	4	6	3	35
40 and less than 45, .	2	8	5	3	2	2	1	23
45 and less than 50, .	1	9	7	1	1	1	—	20
50 and less than 55, .	3	4	4	—	1	—	—	12
55 and less than 60, .	1	—	2	1	—	—	—	4
Total, . . .	90	359	432	311	181	155	74	1,602

NOTE. — Data for age were not available for 1,724 workers.

TABLE II. (b). — *Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
14 and less than 16, .	43	109	126	128	129	129	—
16 and less than 18, .	17	144	275	326	347	353	—
18 and less than 21, .	5	67	184	285	340	371	14
21 and less than 25, .	10	63	172	270	333	401	37
25 and less than 30, .	6	23	47	81	106	134	10
30 and less than 35, .	2	7	17	29	37	50	9
35 and less than 40, .	—	8	14	22	26	32	3
40 and less than 45, .	2	10	15	18	20	22	1
45 and less than 50, .	1	10	17	18	19	20	—
50 and less than 55, .	3	7	11	11	12	12	—
55 and less than 60, .	1	1	3	4	4	4	—
Total, . . .	90	449	881	1,192	1,373	1,528	74

NOTE. — Data for age were not available for 1,721 workers.

TABLE III. (a).—*Average Weekly Earnings: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	11.6	36.5	64.7	82.4	89.9	95.8	4.2
No. 2,	26.8	50.0	69.7	82.3	92.0	97.6	2.4
No. 3,	12.1	32.9	53.4	70.0	84.7	96.1	3.6
No. 4,	42.8	73.0	85.3	93.0	96.1	99.6	.4
No. 5,	21.4	46.0	68.1	84.8	94.2	99.3	.7
No. 6,	31.5	62.6	73.6	86.8	96.7	99.3	.7
No. 7,	27.5	59.3	79.1	94.2	97.3	98.8	1.2
No. 8,	41.6	75.3	89.6	96.1	100.0	100.0	—
No. 9,	17.2	56.9	81.0	98.3	98.3	100.0	—
No. 10,	51.8	75.0	87.5	89.3	91.1	98.2	1.8
No. 11,	15.8	44.7	68.4	89.5	92.1	92.1	7.9
No. 12,	—	—	—	8.3	41.7	91.7	8.3
No. 13,	—	—	12.5	12.5	87.5	100.0	—
No. 14,	—	—	—	—	28.6	42.9	57.1
Total,	23.1	49.0	69.6	83.8	92.1	97.5	2.5

TABLE III. (b).—*Weekly Rates: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS WITH WEEKLY RATES OF —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	—	9.7	43.4	70.5	87.8	93.3	6.7
No. 2,	—	35.0	62.9	76.7	88.8	97.9	2.1
No. 3,	—	21.7	42.0	57.3	73.2	92.9	7.1
No. 4,	7.0	50.2	74.0	86.3	93.0	99.6	.4
No. 5,	—	24.9	46.5	62.8	79.9	95.2	4.8
No. 6,	3.4	39.1	56.2	71.9	88.5	100.0	—
No. 7,	5.3	17.2	48.8	76.6	91.4	99.0	1.0
No. 8,	—	32.5	63.6	83.1	93.5	98.7	1.3
No. 9,	—	—	75.0	87.5	93.8	100.0	—
No. 10,	—	56.4	74.5	85.5	90.9	90.9	9.1
No. 12,	—	—	—	—	8.3	83.3	16.7
No. 13,	—	—	—	12.5	12.5	87.5	12.5
No. 14,	—	—	—	—	—	14.3	85.7
Total,	1.2	26.3	53.5	72.2	86.3	96.0	4.0

NOTE.— Rates were not available for establishment No. 11.

TABLE IV. (a). — *Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 30, . . .	9	3	—	—	—	—	—	12
30 and less than 34, . .	27	6	2	—	—	—	—	35
34 and less than 38, . .	63	23	10	1	—	—	—	97
38 and less than 42, . .	118	69	28	15	7	—	—	237
42 and less than 46, . .	132	149	74	67	46	9	2	479
46 and less than 50, . .	33	96	87	51	52	45	14	378
50 and less than 54, . .	—	13	28	19	7	8	5	80
54 and over, . . .	—	—	2	4	1	—	1	8
Total, . . .	382	359	231	157	113	62	22	1,326

NOTE. — Data concerning hours were not available for 2,000 workers.

TABLE IV. (b). — *Hours of Labor: by Establishments (Cumulative).*

ESTAB- LISHMENTS.	PER CENT. OF WORKERS WORKING —							54 Hours and over.
	Less than 30 Hours.	Less than 34 Hours.	Less than 38 Hours.	Less than 42 Hours.	Less than 46 Hours.	Less than 50 Hours.	Less than 54 Hours.	
No. 2, . . .	.7	2.7	7.6	23.2	56.7	91.2	99.1	.9
No. 4, . . .	1.1	6.9	16.5	36.7	67.6	99.5	100.0	—
No. 6, . . .	1.7	4.6	19.8	41.8	86.9	98.3	100.0	—
No. 8, . . .	—	1.3	6.5	33.8	89.6	97.4	100.0	—
No. 9, . . .	—	—	—	—	5.6	44.4	94.4	5.6
Total, . . .	.9	3.5	10.9	28.7	64.9	93.4	99.4	.6

NOTE. — Data concerning hours were not available in nine establishments.

TABLE V. (a). — *Fluctuation of Employment among 3,326 Workers: by Occupations.*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
Dipping,	1.1	25.4	31.3	34.7	37.4	42.4	46.6	52.3	60.8	71.1	81.4	100
Plain packing,	1.9	25.3	30.9	35.0	37.2	41.6	46.7	50.8	58.2	68.6	81.0	100
Fancy packing,	4.9	19.5	23.4	26.5	28.0	30.9	35.7	40.1	45.8	55.9	70.6	100
Machine tending, . . . . .	.9	26.2	29.7	32.0	34.0	37.2	42.4	48.0	57.6	67.7	82.0	100
Floor work,	1.0	13.4	15.8	17.5	18.6	23.0	25.8	32.0	44.7	54.3	72.5	100
Candy wrapping,	5.3	20.7	24.2	26.0	27.4	30.5	34.4	41.4	50.5	64.2	76.5	100
Nut sorting,	10.5	17.5	22.8	24.6	26.3	29.8	29.8	38.6	54.4	56.1	73.7	100
Miscellaneous,	2.9	16.6	21.6	24.4	26.8	29.1	33.5	37.1	43.6	51.9	63.1	100
Total,	2.6	21.8	26.4	29.4	31.4	35.2	39.6	44.7	53.0	63.1	76.0	100

TABLE V. (b). — *Fluctuation of Employment among 3,226 Workers: by Establishments.*

ESTABLISHMENTS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
No. 1.	.5	32.4	39.3	41.5	43.8	48.7	53.9	58.6	65.2	75.0	85.3	100
No. 2.	1.6	14.6	18.7	22.3	23.7	27.7	32.1	37.2	46.3	59.3	71.6	100
No. 3.	3.6	25.1	29.6	33.6	36.5	41.0	44.6	49.2	55.7	62.9	76.2	100
No. 4.	1.8	13.3	16.8	20.7	22.5	24.9	28.8	33.0	38.9	48.1	63.2	100
No. 5.	1.1	23.6	26.1	29.0	31.9	34.8	39.1	47.5	57.2	64.5	80.8	100
No. 6.	2.2	12.8	16.1	17.9	19.0	23.1	27.5	30.8	42.5	55.7	71.4	100
No. 7.	11.6	20.2	24.4	27.5	29.8	32.9	36.8	40.7	50.4	60.1	73.6	100
No. 8.	—	23.4	31.2	32.5	32.5	33.8	39.0	49.4	59.7	63.6	76.6	100
No. 9.	8.6	13.8	15.5	19.0	25.9	27.6	32.8	39.7	46.6	56.9	67.2	100
No. 10.	16.1	25.0	26.8	32.1	32.1	32.1	32.1	41.6	48.2	51.8	67.9	100
No. 11.	2.6	13.2	13.2	15.8	18.4	21.1	23.7	28.9	42.1	52.6	76.3	100
No. 12.	—	58.3	66.7	66.7	66.7	75.0	75.0	75.0	91.7	91.7	100.0	100
No. 13.	—	50.0	50.0	50.0	50.0	50.0	50.0	50.0	75.0	100.0	100.0	100
No. 14.	—	71.4	71.4	71.4	71.4	71.4	71.4	71.4	85.7	85.7	100.0	100
Total,	2.6	21.8	26.4	29.4	31.4	35.2	39.6	44.7	53.0	63.1	76.0	100

DIAGRAM I.

CURVE SHOWING PER CENT. OF EMPLOYMENT FOR 3,326 CONFECTIONERY WORKERS DURING 52 WEEKS.

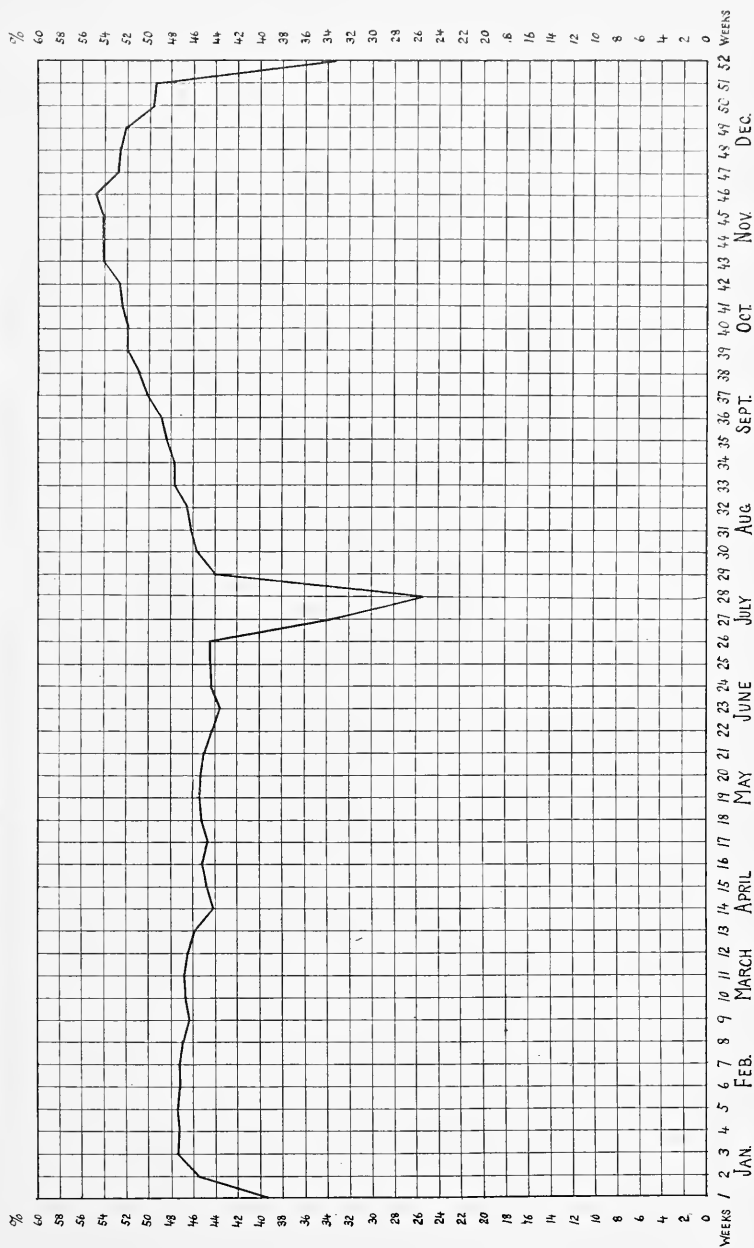


TABLE VI. — *Home Conditions and average Weekly Earnings*
(Cumulative).

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over
Living at home, . . .	84	417	810	1,086	1,258	1,409	72
Living away from home,	4	28	65	99	108	112	2
Total, . . .	88	445	875	1,185	1,366	1,521	74

NOTE. — Data concerning home conditions were not available for 1,731 workers.

WAGES OF WOMEN IN THE LAUNDRIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The laundry industry in its present form is of comparatively recent development. The old methods of hand work and home laundering are being rapidly supplanted by power-driven machine processes. Garments may now be washed, starched, ironed and returned to customers without having undergone a single hand process except sorting and listing and adjustments to the various machines. So-called hand laundries now send a great part of their work to steam laundries which perform the major portion of the work and return the goods to the hand laundries. True competition for power laundries comes only from the Chinese laundries, which use very little machinery and which flourish largely on account of the cheapness of oriental labor.

Laundries are not considered as manufacturing establishments in the federal census classification, and no statistics for them were gathered in censuses of manufactures prior to 1909. At the time of gathering the material of the thirteenth census, however, the officials decided that the industry should no longer be omitted from the industrial census on account of the large proportions which it had reached.

The report on laundries in the thirteenth census¹ is confined to establishments operated by power, which are, in a

¹ United States, thirteenth census, Vol. X., p. 887.

word, steam laundries. According to the census study there are in the United States 5,186 laundries of this kind, with 124,214 persons engaged in the industry and annual receipts for work done of \$104,680,086.

Statistics of Manufacture (Laundries).

	CENSUS RETURNS FOR 1909. ¹	
	United States.	Massachu- setts.
1. Number of establishments,	5,186	280
2. Persons engaged in the industry,	124,214	6,655
3. Proprietors and firm members,	5,560	313
Salaried employees,	9,170	384
Wage earners (average number),	109,484	5,958
4. Primary horsepower,	123,477	6,802
5. Capital,	\$68,935,226	\$2,951,025
6. Expenses,	\$85,187,604	\$4,745,135
Services,	\$53,007,747	\$2,918,919
Salaries,	\$8,180,769	\$336,326
Wages,	\$44,826,978	\$2,582,593
Materials,	\$17,696,360	\$903,845
Miscellaneous,	\$14,483,497	\$922,371
7. Amount received for work done,	\$104,680,086	\$5,754,572

New York ranks first in the industry, with 508 establishments and \$11,446,663, or 10.9 per cent.² of the total for the United States, as the receipts for the work done. Illinois, which ranks third in population, and California, which ranks twelfth in population, rank, respectively, second and third, as shown by the amount received for work done. In general, States with a high per cent. of urban population rank high when rated according to the value of the work done.

¹ *Ibid.*, pp. 898, 899.

² *Ibid.*, p. 888.

Summary for the Ten Most Important States according to the Amount of Work done.¹

STATE.	POPULATION, 1910.		Number of Establishments, 1909.	WAGE EARNERS, 1909.		AMOUNT RECEIVED FOR WORK DONE, 1909.	
	Rank.	Per Cent. Urban.		Average Number.	Rank.	Amount.	Rank.
<i>United States,</i>	—	46.3	5,186	109,484	—	\$104,680,086	—
New York,	1	78.8	508	12,578	1	11,446,663	1
Illinois,	3	61.7	448	9,705	2	10,049,445	2
California,	12	61.8	321	8,038	4	9,541,795	3
Pennsylvania,	2	60.4	385	9,639	3	8,331,834	4
Massachusetts,	6	92.8	280	5,958	5	5,754,572	5
Ohio,	4	55.9	253	5,893	6	5,388,954	6
Missouri,	7	42.5	171	5,438	7	4,904,249	7
Washington,	30	53.0	172	3,264	9	3,814,825	8
Michigan,	8	47.2	219	3,729	8	3,261,841	9
Texas,	5	24.1	127	3,073	10	3,220,315	10

The industry is noted as one of those employing more women than men. Of the total number of wage earners in the country, 71.2 per cent. were females.²

Massachusetts ranks fifth, both according to the amount received for the work done (\$5,754,572 in 1909) and with respect to the number of establishments in the State (280). The average number of wage earners employed in the State is 5,958.

The seasonal fluctuation in the industry is comparatively slight. The heaviest business comes in the summer months. In most of the States the busiest month is July, August or September, and the dulllest month January or February.

Owing to the nature of the work the laundry industry has developed with comparative uniformity, according to the density of the urban population, all over the country. Every city of any size has its power laundries, but as a rule, development does not go on in any one locality at the expense of another. In 1909 there were only 6 cities in which as many as 2,000 persons were engaged in the industry,

¹ United States, thirteenth census, Vol. X., p. 888.

² *Ibid.*, p. 889.

or in which the receipts for work amounted to \$2,000,000 or over. These cities were Chicago, New York, Philadelphia, San Francisco, Los Angeles and St. Louis.¹ In this regular distribution, according to the numbers of the population, Massachusetts is typical of the rest of the country. The majority of the laundries taken into consideration in the present study were located in the metropolitan area.

*Massachusetts: Statistics for Cities and Towns, 1913.*²

CITIES AND TOWNS.	Number of Es- tablish- ments.	Capital invested.	Cost of Materials used.	Average Number of Wage Earners.	Wages paid.	Value of Work done.
<i>The State, . . .</i>	377	\$4,542,313	\$1,259,655	8,160	\$3,884,570	\$8,781,826
Beverly, . . .	4	28,376	11,325	78	36,334	75,645
Boston, . . .	63	1,110,791	340,209	2,333	1,062,680	2,411,416
Brockton, . . .	5	73,141	21,222	134	88,610	165,501
Cambridge, . . .	9	297,877	72,601	518	259,875	592,286
Fall River, . . .	13	242,382	51,543	247	128,224	299,194
Fitchburg, . . .	5	35,950	9,362	89	36,197	79,102
Haverhill, . . .	15	99,855	24,443	174	79,213	178,597
Holyoke, . . .	5	115,257	16,070	94	45,990	113,617
Lawrence, . . .	9	54,086	23,292	112	54,191	132,250
Lowell, . . .	10	80,950	26,092	212	85,874	173,397
Lynn, . . .	14	208,990	48,010	332	154,432	353,751
Malden, . . .	5	40,814	15,527	123	66,432	118,844
New Bedford, . . .	14	157,273	51,379	249	138,875	312,358
Newburyport, . . .	6	22,872	4,025	40	16,857	47,140
Northampton, . . .	3	21,580	5,862	51	22,478	46,872
Quincy, . . .	5	41,705	10,299	59	33,213	74,325
Salem, . . .	4	49,459	23,768	148	77,699	167,652
Somerville, . . .	4	19,176	14,931	66	36,210	96,384
Springfield, . . .	12	273,008	68,260	422	212,220	472,474
Taunton, . . .	4	81,235	15,740	92	41,591	95,711
Worcester, . . .	12	270,404	75,193	414	190,730	439,221
Other cities, . . .	28	247,933	79,641	482	232,672	543,141
Towns, . . .	128	969,199	250,861	1,691	783,973	1,792,948

¹ United States, thirteenth census, Vol. X., p. 897.

² Massachusetts Bureau of Statistics, Report on the Power Laundries in Massachusetts, 1913, p. 15*f*.

The Massachusetts Bureau of Statistics, which issued a Report on Power Laundries in Massachusetts in August, 1914, gives the proportion of the sexes as follows:¹—

Proportions of the Sexes.

YEARS.	AVERAGE NUMBER OF WAGE EARNERS.			PROPORTION OF THE SEXES (PER CENT.).		
	Males.	Females.	Total.	Males.	Females.	Total.
1909,	1,859	4,099	5,958	31.2	68.8	100
1912,	2,385	4,972	7,357	32.4	67.6	100
1913,	2,831	5,329	8,160	34.7	65.3	100
Wet wash, exclusively, . .	662	181	843	78.5	21.5	100
General laundries, . . .	2,169	5,148	7,317	29.6	70.4	100

In the same report the increase in the number of wage earners from 1909 to 1913 is given as follows:²—

Wage Earners.

NUMBER OF WAGE EARNERS.	NUMBER OF ESTABLISHMENTS.		NUMBER OF WAGE EARNERS EMPLOYED.		PER CENT. OF IN- CREASE IN —	
	1909.	1913.	1909.	1913.	Estab- lishments em- ploying Specified Number.	Number of Wage Earners.
<i>The State,</i>	280	377	5,958	8,160	34.6	37.0
1 to 5, ³	69	88	234	298	27.5	27.4
6 to 20,	127	176	1,465	1,945	38.6	32.8
21 to 50,	55	73	1,700	2,291	32.7	34.8
51 to 100,	20	26	1,424	1,781	30.0	25.1
101 to 180,	9	14	1,135	1,845	55.6	62.6

The report summarizes the increases from 1909 to 1913 as follows:—

¹ Massachusetts, Bureau of Statistics, Report on the Power Laundries in Massachusetts, 1914, p. 17.

² *Ibid.*, p. 18.

³ Includes one establishment having no wage earners in 1909 and three such establishments in 1913.

Number of establishments,	35 per cent. increase.
Amount of capital invested,	54 per cent. increase.
Value of materials used,	39.4 per cent. increase.
Value of work done,	53 per cent. increase.
Number of employees,	37 per cent. increase.
Amount of wage paid,	50.4 per cent. increase.

The importance of the growth of this industry to the well-being of the community, meaning as it does the transfer of the most dreaded drudgery of the household to modern and well-equipped establishments, is emphasized in the report.

METHOD AND SCOPE OF THE INQUIRY.

The study of laundries by this commission was made early in the year 1914. The canvass was confined to power laundries used by the public, and did not include Chinese laundries or laundries connected with institutions. It included 36 establishments, widely scattered and embracing the principal large cities of the State. In these laundries a transcript of the pay-roll records for each female employee was taken for a period covering the fifty-two weeks preceding the date of the investigation. This record in the case of 7 laundries included the record of the number of hours worked each week. In as many cases as possible schedules were also filled out by women workers themselves, in order that the commission might have available such information as age, marital condition, living arrangements, length of experience and similar items. In addition an inspection of the premises was made for the purpose of studying the occupations. The results of the analysis of the schedule material will be found in the section entitled, Analysis of the Wage Situation and following sections.

In accordance with the duties of the commission as prescribed by the statute, the inquiry has been limited to ascertaining wages and rates for the various occupations, with such other matters as are most intimately connected with that subject. This procedure necessitated the omission of many subjects which might have proved both interesting and valuable as matters of public knowledge in connection with the wage situation. For example, the

matters of overtime, sanitation, accidents, and more detailed information as to the living arrangements and expenses of the women employees, have a definite bearing on the matter of wages in any given employment. Moreover, these matters are under the jurisdiction of other boards and commissions in this State, and certain information concerning them appears from those sources from time to time. Consequently, the material gathered by the commission, limited in scope, comprises the data which in the experience of the commission have proved to be most pertinent and useful in the attempt to improve the wage situation.

THE OCCUPATIONS.¹

Marking. — Soiled clothes are collected and brought into the laundry by drivers. They are carried to the markers, whose task is to undo the bundles, count the contents and check the sender's wash-list, mark by hand or machine each article that does not already bear the proper symbol of identification, and separate the pieces into groups according to the kind of washing and finish they are to receive. This work is usually divided among several persons of different degrees of skill, each of whom does only one specific task. The occupation of expert marker calls for speed, accuracy and judgment that can only be attained through experience and by intelligence. As in most establishments soiled clothes are collected from regular customers in the early part of the week, the bulk of the markers' work is over by Friday or earlier, hence, they are sometimes also employed at assembling and bundling the finished goods, or at some other task, when their own week's work is finished. Women are employed almost exclusively at this work, which, although not one of the most exhausting of laundry occupations, requires almost constant standing and great speed on rush days.

Washing. — With the exception of especially delicate articles, all the goods handled by steam laundries are washed

¹ See Bulletin of the United States Bureau of Labor Statistics, Whole Number 122, on the Employment of Women in Power Laundries in Milwaukee, for detailed descriptions of laundry machinery and of the physical demands of the various occupations.

and rinsed by machinery, which is operated almost entirely by men. The washing-machine in use in modern power laundries consists of a cylindrical case of wood or metal enclosing a perforated inner cylinder of similar material in which the soiled linen is placed. Ribs on the inner surface knock the clothes to and fro, acting like the corrugated surface of a washboard, while the cylinder revolves first for a number of times in one direction and then in the other, forcing water and suds continuously through the fabric. The goods are washed, boiled, rinsed, bleached and blued successively while in these machines. Each group distinguished by the markers is washed separately according to the quantity of chemicals, the number of waters and the length of washing required by the nature of the articles and the amount of dirt upon them. The articles are then carried to the wringing machines or extractors, which are metal tubs each containing a perforated inner compartment, into which the clothes are packed and which revolves at such a high rate of speed that the water is pressed out by centrifugal force. The tending of extractors is heavy work, and there is danger that a careless operator may have his arm broken by being caught in the mass of revolving linen. Of the Massachusetts laundries visited only two reported the employment of women at this task, and these were both washwomen who presumably gave only a small part of their time to the extractors. In almost every laundry doing much starch work, there is employed at least one washwoman, who washes by hand, in set tubs, ladies' fine waists and underwear, silk goods, fine flannels, laces and other delicate articles. Only one laundry reported a woman in charge of a washing-machine, and even in her case the chief occupation reported was hand-washing.

Flat-work Finishing.

Shaking. — The linen becomes packed in solid masses by the centrifugal force of the whirling extractors; these must be untwisted and each piece shaken out before ironing. In most power laundries there is a machine known as a "tumbler," resembling in appearance and principle a washing-

machine, which contains a revolving inner cylinder in which small pieces are tumbled about and partially untwisted. They are then shaken out by hand and placed in piles ready for the flat-work ironer or mangle, as the machine was formerly called. The sheets and other large pieces are not usually put into the tumbler, but are untwisted as they are shaken out by women working in pairs. This work is the least skilled of all the laundry occupations, and is always performed by women. Shakers almost always stand at their work, as it is considered impracticable for them to sit when handling small pieces, and the work, when continued throughout the day, means a constant strain on the muscles of the arms and back. In some laundries the shakers alternate with the feeders and folders, thus having a change of occupation which increases the efficiency of all three groups of workers.

Feeding. — The flat-work ironer is a machine in which flat pieces are ironed and at the same time dried by passing under pressure between one or more padded rollers and a corresponding number of steam-heated chests, in the case of one type of machine, or between the rolls and a steam cylinder if the machine is of the other type in common use. The larger these machines are the more heat is radiated from them, especially those of the steam cylinder type, and there is always some steam rising from the damp linen as it passes over the heated ironing surfaces. Hoods, equipped with exhaust pipes to draw off the heat and moisture, are sometimes placed overhead, but as the use of hoods and even of heat deflectors is by no means universal, the atmosphere in which the women work is frequently uncomfortably hot and moist.

The feeder is the operator who inserts the straightened edge of each piece to be ironed under the first roll and sees that it passes smooth and flat into the machine. Usually this process is assisted by a feeding device, consisting of a plate or roll placed directly in front of the first roll. This also acts as a finger guard. Another type is a moving apron of canvas strips equipped with an automatic finger guard which, when pressed forward or lifted by the feeder, stops

the movement of the machine at once. Owing to the stringent requirements of the insurance companies, unguarded flat-work ironers are rare if not entirely out of use in Massachusetts laundries. The feeders practically always stand at their work, although the experience of several laundries shows that small pieces can be handled by seated employees. The speed of the operators depends upon the speed of the machines and the vigilance of the forewoman or superintendent; but this work, though continuous, rarely seems to be performed under great pressure.

Folding. — As the linen comes out of the other end of the ironer it is taken in charge by workers known as catchers, receivers or folders, who fold each piece and place the folded pieces in piles. In a number of laundries it is customary for these women to sit, except when handling large pieces upon which they work in pairs. When the machines are moving at a high rate of speed it is necessary for the folders to work very fast in order to keep up with the feeders.

Hotel work and other large lots are usually not marked, but are sent through the laundry in separate lots. After they have been ironed and folded a special worker counts the piles of linen to see if the lots have come through complete. In establishments doing a large supply or wholesale business special employees, known as counters, devote their whole time to this work.

Starch-work Finishing.

Starching. — There are usually three groups of starchers employed in power laundries, one handling collars, another shirts and the third fancy articles, such as ladies' dresses, waists and underwear. In large establishments collar starchers are usually of two kinds, — experts and their assistants. The work of the assistants is to feed the collars into a machine in which they are carried by a moving apron between rolls and through a reservoir of hot starch. As they emerge from this they fall on to a table at which stand one or more expert starchers, who rub each collar by hand so that the starch is evenly distributed and the linen smoothed

in the correct way. As the starching process is considered the critical point in the successful laundering of collars, expert starchers are in great demand. In some establishments there are machines for starching shirt bosoms; in others, bosoms and cuffs are dipped into a pail of starch; but in any case they must be rubbed smooth by hand. Fancy goods are dipped in thin starch and wrung out in starch extractors constructed on the same principle as those in use in the wash room. Starchers almost always work standing.

Drying. — Collars and shirts are hung by the starchers upon hooks of the loop-conveyors, on which they are carried automatically through the dry room and dropped into a basket ready to go to the dampeners. Fancy goods, and in some places collars and shirts as well, are hung on racks, which must be moved in and out of the dry room by hand. In some laundries where this work is particularly heavy and hot, it is wholly or in part undertaken by men. Goods sent home rough-dry are usually placed in a drying tumbler, a machine in which they are tumbled about, while at the same time a current of heated air is forced through them. Starchers usually attend to all the processes of drying, but where a large rough-dry business is done special employees, known as dryers, are sometimes employed.

Dampening. — Collars and cuffs are dampened by being passed through machines similar to those used for starching, the rolls of which are moistened by immersion in a water tank. Shirts and other garments are passed under sprays or through machines similar to the collar and cuff dampeners. They are then wrapped in cloths and placed in presses, where they remain until the moisture has penetrated all the fabric uniformly. The work of tending dampening machines is light and does not require much skill. The manipulation of the presses, which frequently consist of nothing more than a box and two or three heavy stones, is often looked after by men.

Collar Ironing and Finishing. — Collars and cuffs are ironed upon small flat-work ironers, the feeding of which is easy work and requires no particular skill. After they are

ironed the collars are submitted to a number of supplementary machine processes, by which they are edged, shaped and if necessary tipped (in the case of wing-collars), or are creased and turned. The handling of these machines is not necessarily hot work and requires little physical exertion, but demands more skill than the feeding of ironers, and in the larger laundries it is undertaken by a special group of expert operatives known as collar finishers or shapers. In many establishments, however, all those who work on collars are grouped together as "collar girls," and their work alternates from starching and dampening to ironing and finishing. Machine feeders are sometimes permitted to sit at their work, while finishers are practically always on their feet.

Bosom Press Operating. — Shirts are finished either entirely by hand or partly by machinery and partly by hand. Where machines are used the work is usually entirely in the hands of women, each one of whom attends only to one specific operation.

Two kinds of machines are in use for finishing bosoms. The bosom ironer, so called, consists of a heated metal roller which passes over the linen stretched on a padded board. A bosom press is, however, the machine most commonly used. The worker adjusts the garment on a padded board or shirt bed, and then by stepping on a foot treadle sets in motion a mechanism which brings the bosom in contact with a heated iron steam-chest, to which the bed is locked under heavy pressure until set free by operation of the release treadle. Some of the new presses are equipped with compressed air levers, but their use is still rare. The manipulation of these machines calls for skilled workers, as much depends upon the proper adjustment of the bosom on its bed.

Cuff, Yoke and Neckband Ironing. — The three machines which effect these processes are also operated by pressure and release treadles, and work on the same principle as the bosom press. The cuff, neckband or yoke is laid upon a padded bed, and by the operation of the foot treadle this is brought into contact with a steam-heated chest of the

same shape, pressure upon the release lifting the chest. Some skill is required in this occupation, as the fit of a shirt is said to depend largely upon the proper ironing of the neckband and yoke. The work is hot and involves the constant use of foot pressure and the danger of burnt fingers.

Body and Sleeve Ironing. — In some establishments the remaining parts of the shirt — that is the body and sleeves — are ironed by hand. The use of machines for this work, however, is constantly becoming more general, and the use of hand irons is becoming limited to smoothing out places which cannot be satisfactorily covered by the machines. The body and sleeve ironers, which differ from each other only in size, consist of a heated metal shoe or revolving cylinder, parallel to which is a padded roll of the same length but slightly smaller diameter. The garment is drawn over this lower roll, which is then, by foot pressure, brought into contact with the heated ironing surface. With her hands, the operator guides and shifts the material, while one or both feet are in constant motion regulating the exact amount of ironing pressure. The greater number of machines in use are reversible, and most of these are equipped with two treadles. Platforms are usually provided for operators of one-treadle machines, so that they need not be constantly stepping up on to the treadle. Waiters' coats, ladies' skirts, aprons and underwear and similar articles are frequently ironed on these machines. Although men are employed at this occupation in a few laundries, in general it is undertaken by women, and is considered to be the heaviest work done by them in power laundries. Machines are now made which are controlled by compressed air levers, which require only slight foot pressure, and at which the operator can sit; but none of these had been introduced into the Massachusetts laundries visited. The use of machines of this sort, equipped with adequate finger guards and with exhaust hoods or asbestos-lined heat deflectors, would do much to lighten this occupation.

When the shirts have passed through this last machine process they are almost always given a few finishing touches by hand ironers. They are then folded and inspected by

the forewoman of the department, or in some large establishments by special workers employed only at this task.

Hand Ironing. — With the exception of a few men engaged in ironing shirts wholly or partially by hand, hand ironing is women's work. Except for the use of an occasional drag iron, and of gas or electricity for heating, the fancy ironers of the modern power laundry use the same processes and tools as does the ordinary laundress in the home. Shirt and fancy ironers become expert only through long experience; plain ironers and "finishers," on the other hand, need much less skill. All ironing involves constant standing in one position, and when performed in an overheated atmosphere is heavy and tiring.

Sewing and Mending. — In most good-sized establishments one or more sewing women are employed for all or part time, who mend all articles which are torn during the process of laundering, and keep men's shirts and underwear in repair. Where a supply company is connected with the laundry these women mend the stock, and sometimes hem and mark the towels.

Assembling and Sorting. — After the clothes have been "finished" they are assorted according to the marks upon each article, the separate washings are assembled and checked with the original lists, and each lot boxed or wrapped, ready to be returned to the sender. Here, again, as in the marking department, the work is frequently divided among employees of different grades of skill, all of whom are, however, likely to be reported under the occupation of assembler or sorter. This work, although calling for speed, seems to be as little exacting as any of the laundry occupations, and is usually performed in the coolest part of the building.

ACCIDENT HAZARD.

The commission has made no especial study of the accident and health hazard in laundries for reasons detailed elsewhere in this report. At the same time, a brief summary of the present state of affairs in this respect is necessary for a thorough understanding of the circumstances surrounding laundry employees.

The principal physical dangers peculiar to their occupation to which laundry workers are exposed are connected with unguarded extractors, unguarded flat-work ironers and exposed gearing. These dangers are rapidly decreasing, owing to the introduction of modern automatic guarded machinery which is so conspicuous a characteristic of the development of the laundry business in Massachusetts and elsewhere. Dangers to health from the exertion required to operate foot-treadles on cuff and neckband presses and body ironers are less tangible, but in some cases the operations are considered to be distinctly detrimental to the health of young women. The introduction of pneumatic treadles has mitigated these dangers to some extent.

According to the summaries presented in the first annual report of the Industrial Accident Board of Massachusetts, covering the period from July 1, 1912, to June 30, 1913, inclusive, 186 nonfatal accidents and 1 fatal accident occurring among laundry workers were reported to the Board during the year. The causes of the nonfatal accidents are assigned as follows:—

CAUSE.	Number of Accidents.
Animals, insects, etc.,	3
Assaulting and fighting,	1
Belting:—	
Contact with running belt,	1
Hook or fasteners,	1
Boiler explosions,	1
Burns:—	
Hot objects,	5
Steams, hot liquids, etc.,	10
Electricity:—	
Generator and motor accidents,	2
Elevators:—	
Caught between car and shaft,	3
Falling down shaft,	2
Struck by falling object,	1
Miscellaneous,	1
Explosions (other than boilers),	1

CAUSE.	Number of Accidents.
Extractors (centrifugal),	6
Eye injuries: —	
Chemicals,	2
Miscellaneous,	1
Falling material from overhead,	1
Falls: —	
Over obstructions,	3
From or with portable ladders,	2
From scaffolding, etc.,	3
Slipping on floor level,	5
Down stairways,	5
Miscellaneous,	4
Gears,	1
Glass: —	
Bottles and miscellaneous,	3
Hand labor: —	
Caught by material,	10
Slivers, sharp edges, corners, etc.,	4
Strains from lifting, etc.,	2
Struck by tools,	2
Illness,	3
Infection from trivial cuts, burns, etc.,	3
Miscellaneous (unclassified),	17
Nails: —	
In boxes, barrels, or objects,	1
On floor or ground,	1
Presses: —	
Punch and drop and miscellaneous,	6
Railroad equipment: —	
Struck or run over by car or locomotive,	1
Shafting, set-screws, couplings, etc.,	3
Vehicles: —	
Animal-drawn,	16
Self-propelled,	2
Trucks, wheelbarrows, etc.,	4
Accidents caused by machinery peculiar to special industries,	39
Street railways: —	
Caught between car and fixture,	1
Collisions between car and vehicle,	3
Total,	186

The single fatal accident reported is classed under "accidents caused by machinery peculiar to special industries."

The report affords certain additional information about the injured persons. Sixty-seven, or 36 per cent., were women. More than one-half (55.9 per cent.) of the total number injured were less than thirty years of age. About one-third (35.5 per cent.) were earning \$8 or less a week. In the majority of cases the duration of disability was less than two weeks. Only 13 out of the 186 persons were incapacitated for more than eight weeks. With regard to the nature of the disability, whether temporary or permanent, the majority are included under the classification "temporary total."

The single fatal accident was that of a man between the ages of sixteen and twenty-one, single, with no dependents, with wages lying between \$8 and \$15 a week.

METHOD OF TREATING WAGE MATERIAL.

In the preparation of the material for tabulation all records of persons who appeared on the pay roll for less than four weeks out of the fifty-two under consideration were thrown out. This was done in order that the conclusions reached might apply only to workers who could legitimately be considered a part of the normal working force of the industry.

In computing weekly earnings and hours worked each week for individual workers, the procedure for each individual was as follows: the sum of all payments made during the fifty-two week period, that is, the girl's total income from her work for the year, was found. This sum was divided by the number of weeks during which she was actually at work, as indicated by the number of weekly payments made to her. In this way her average weekly income for the time she was at work in the occupation under consideration was ascertained. A corresponding procedure was adopted in treating hours of work. The number of hours worked in the various weeks was totaled, and this sum divided by the number of weeks actually at work. A slight inaccuracy is necessitated by the fact that in some

cases girls enter or leave the laundry in the middle of a week. Laundry records rarely exist, however, to show whether small payments and short hours may be ascribed to this cause or to short-time work. The commission has made it a rule to follow the written record, and has attempted to present the pay-roll figures as found, without omissions or additions due to interpretations of its own.

ANALYSIS OF THE WAGE SITUATION.

Classified weekly earnings for laundry workers are shown in Table I. (a) and (b). Slightly more than one-half (51.5 per cent.) of the workers averaged less than \$6 a week during those weeks of the year when they were at work. The largest single classification is that of "\$5 and under \$6;" 26.5 per cent. of the laundry workers fall in this group. Exactly the same percentages, 8.2 per cent. in each case, fall at the two extremes, "under \$4" and "\$9 and over."

These figures make plain the fact that whatever the *rates* of pay for these workers may be (a discussion of this point follows in the analysis of Table II.), a majority of a group of nearly 3,000 workers receive less than an average of \$6 a week for their work. It will be noted that this figure is far below those usually given, even in the lowest estimates of the necessary cost of living for working women of the present day.

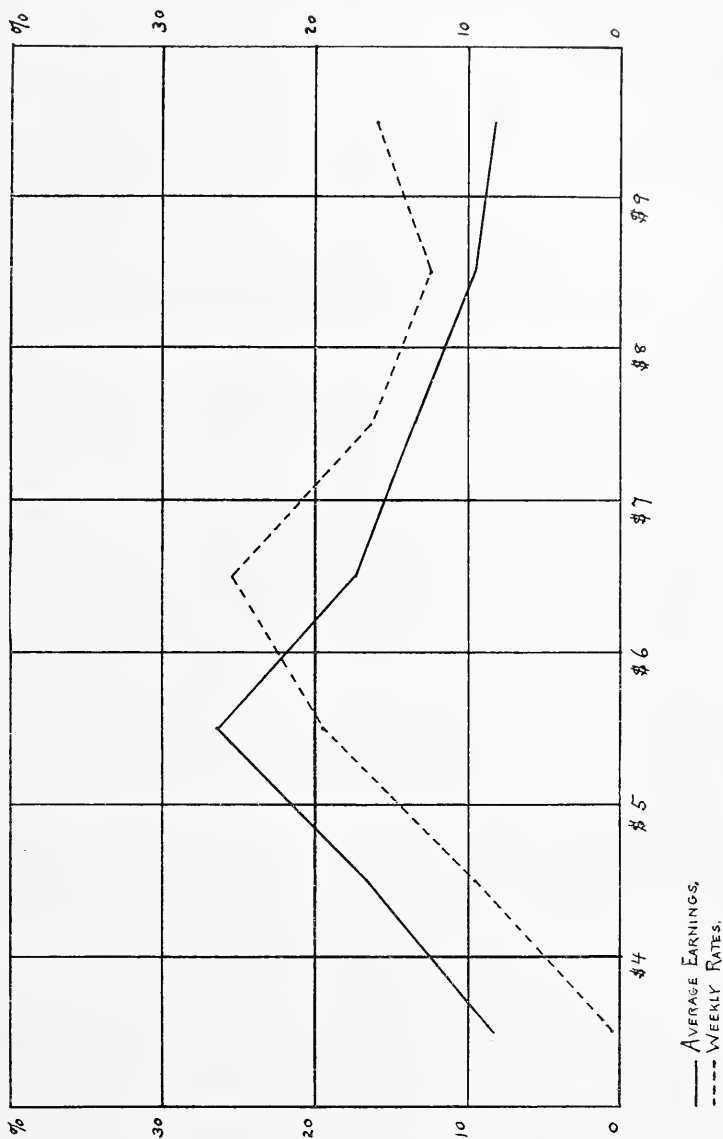
Shaking is distinctly the lowest-paid occupation of those listed. More than a third (34.5 per cent.) of the 444 workers in this occupation earned less than \$4 a week. This work is the least skilled of the occupations, as well as one of the most tiring. Next to shaking, catching and folding, miscellaneous flat-work ironing and feeding stand out as occupations in which the girls received the lowest wages. Bosom press operating is clearly the highest paid operation; exactly a third of the operators on these machines earned more than \$9 a week. Inspecting, shirt and coat folding, marking and sorting, hand ironing, and body and sleeve ironing also stand out as occupations with high earnings as compared with the earnings of the whole group.

Table II. corresponds in form to Table I., except that weekly rates of payment instead of amounts actually received are taken into consideration.¹ This table shows the general tendency of rates to lie appreciably higher than earnings. Only 29.6 per cent. of the workers were scheduled to receive less than \$6 a week, in contrast to 51.5 per cent. who actually received payments of less than \$6. In the same way, 16 per cent. were scheduled at over \$9, but only 8.2 per cent. actually received as much as \$9. The relation between rates and payments is shown graphically in Diagram I. (See page 71.)

The cause for the general failure to earn the full amount is one concerning which employers and employees differ, in much the same way as they differ with regard to the reasons for unemployment, a matter which is discussed at a later point in the study. Just what amount of the failure to make full wages can be ascribed to compulsory short time, and what amount to the preference of the employee, is one concerning which the commission has not been furnished with material upon which an impartial judgment could be based.

In Table III. and Table IV. the matter of earnings and rates is considered apart from occupations, but with reference to each of the 36 establishments studied. The most striking fact shown by the tables is the wide differences in both respects among the various establishments. In Table III., for example, there are several establishments in which no women earned less than \$4, while in two others 42.4 and 46 per cent. earned less than \$4. In the same way the proportions of those who earned over \$9 vary from 42.3 per cent. to none. Corresponding variations are true of the rates scheduled to be paid.

¹ The findings of this commission as to rates paid will be seen to vary from those given in the report of the Massachusetts Bureau of Statistics on Power Laundries in Massachusetts, 1913. These variations may be traced to differences in methods of collecting and tabulating the material. The Bureau of Statistics has made use of schedule material returned by proprietors themselves, on a State-wide scale, while the commission has had the pay rolls of 36 laundries copied by agents; the returns for the Bureau were for the week of employment of the greatest number, while those for the commission were for the fifty-two weeks preceding the date of the investigation; moreover, the returns of the Bureau were tabulated for men, women and young persons under eighteen in two classifications of laundries, while those of the commission were tabulated in one classification of laundries for all females.

DIAGRAM I.PER CENT. OF LAUNDRY WORKERS
AT SPECIFIED AMOUNTS

This striking variation among the wages paid in the various establishments becomes exceedingly important in the discussion of possible increases in wages. The opinion is frequently found among Massachusetts employers to the effect that any increase in wages would unduly hamper them to such an extent that it would become necessary to take their capital out of the State and invest it in a State where the price of labor and costs incidental to it are not so high. Such findings as those of the present study suggest further questions as to this necessity. If it is possible for employers in the same business, in the same localities (for example, establishments No. 2 and No. 20, which are in the same city), to carry on business successfully, it would seem to be indicated clearly that the payment of high wages does not unduly handicap an establishment. It should be remembered, also, that rates of wages have been left wholly to employer and employee up to the present time, and that therefore it must be a question of employers' policy which is involved in the high rates in certain establishments.

In addition it should be said that the payment of high wages is not the practice in the large cities alone, or the payment of low wages the rule in small cities, where the cost of living is supposed to be low. Almost without exception the lowest wages paid were in establishments in Boston proper.

In Table V. the average weekly hours of labor are given for the 571 workers for whom records were available. By far the largest number averaged from forty-six to fifty-four hours a week. A small amount of overtime is observable. A natural relationship between the number of hours worked and the wages received is made clear by the table. Those who worked for less than the full number of hours fall almost wholly in the low-wage groups. In Table VI. the facts concerning hours of work are given for the seven establishments who kept records of hours. The differences are marked in some cases, but display no variations at all comparable to those in wages paid. It will be observed that in three of the establishments there was no overtime.

In Tables VII. and VIII., and in Diagram II. the question of fluctuation of employment is taken under consideration. Table VII. presents the percentages of the employees who were at work for the specified number of months. In the last column, that of the number who were employed for at least one month, the percentage is in each case 100, for the reason that all those who were not at work for at least four weeks were not tabulated. In the first column, consisting of those who worked for fifty-two weeks without vacation, the number is naturally small. In the second column, consisting of those who worked for forty-eight or more weeks, the number is still small, and only in the case of two occupations — inspecting, shirt and coat folding and bosom press operating — does it include half of the employees. Marked differences are seen among the occupations in the regularity of the employment which they offer. On the whole, the skilled occupations have kept the steadiest workers. Not quite one-half the workers had employment for five months or more.

From the records available for the commission's use it is not clear that the amount of absence shown may be called strictly unemployment. When a name disappears from a pay roll in the sixth month of the year, for example, it is not clear whether a girl has left of her own accord for one of many possible reasons, whether she has been laid off by her employer for one reason or another, or whether her name will again appear on the pay roll in which latter case she will probably have left the industry, or at any rate have gone to work in another establishment, and cannot accurately be termed unemployed. The material which could be obtained on this question was not a matter of record and appeared highly unreliable. Consequently, caution has been used in terming the situation "unemployment."

In Table VIII. the same set of facts is set forth with its relation to the separate establishments. A very considerable difference is shown among the establishments, indicating at least that tendencies toward irregularity in work are stronger in some laundries than in others.

Diagram II. shows the percentage of the total number of employees studied who were on the books in each week of the year. Viewed in this way, laundry work appears as a steady form of employment. It becomes evident that although the individuals do not show a tendency to remain steadily at work, the working force from the point of view of the industry is a steady and regular one. In other words, workers who leave the business are rapidly replaced by new workers, and the force at work throughout the year is practically constant. It would therefore seem that industrial causes proper play but a small part in the fluctuation of employment.

Table IX. (a) shows the ages of the workers in relation to the amounts which they earned weekly. The workers are scattered widely through the various wage groups, with the majority between eighteen and thirty. The explanation of the fact that over 200 workers are between thirty and forty probably lies in the character of the work. Fancy ironing and mending, and even machine ironing, correspond so closely to household processes which have long been the prerogative of women that the employment of older women at this work may seem more possible and appropriate to them than factory or department store work.

No clear dependency of the amount of wages received upon age is evident, except for the fact that the extremely young girls are all low paid. In the higher age groups the connection between age, which often indicates experience, and the amount earned is indicated but is not clearly defined. A majority of the laundry workers (77.6 per cent.) live at home. This follows as a consequence from the fact that they are a group of young women. More than one-fourth of those for whom information concerning age was secured were less than twenty-one, and more than one-half were less than twenty-five years old. Women laundry workers, in common with the majority of those of the same ages in other trades, and with those who are not a part of the industrial population, are, as a rule, found to be living with their parents. Even after the age of twenty-one they often continue to live with their parents unless they have married.

Those workers who earn the higher wages (\$9 and over) are more able to live away from home than are those with lower wages, and show a more noticeable tendency to do so. Of those who earned less than \$9 only 21.7 per cent. lived independently, but in the case of those earning more than \$9, 27.4 per cent. stated that they were living away from home. Wages, then, as well as age, appear to be an important factor in determining the living arrangements of women workers.

Table XI. shows the amounts received during the year under consideration by the women in the various occupations. The conspicuous feature of the table is the fact that more than one-half of the workers earned less than \$150. This must not be interpreted as giving in all cases the total income for the year, as no attempt is made to specify earnings outside of the particular establishments on whose books the names appeared.

In Table XII. an attempt is made to ascertain the relationship between years of experience, as reported by the workers themselves, and weekly earnings, as shown by the laundry pay rolls. It is clearly shown that the experienced worker tends to be the high-paid worker, particularly after five years' experience is attained. The classification "15 and over" shows a high proportion earning over \$9. It becomes evident that in so far as these conclusions based on 1,101 workers are typical, laundry work is a form of employment in which the older workers are not sacrificed for young and fresh workers, and in which experience and ability are rated high.

Summary of Analysis.

A summary of the analysis of the material shows that the ordinary woman laundry worker is a woman less than thirty years old, living at home, who earns during the weeks she is working an average of less than \$7 a week, is employed between forty-six and fifty-four hours a week, and works in the laundry for less than six months in the year.

TABLE I. (a).—Average Weekly Earnings: by Occupations.

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —														TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Shaking,	153	34.5	148	3.3	115	25.9	25	5.6	3	.7	—	—	—	—	441	100
Marking and sorting,	5	1.2	27	6.2	66	15.1	96	22.0	78	17.8	84	19.2	81	18.5	437	100
Hand ironing,	3	.8	10	2.7	39	10.3	71	18.7	103	27.2	83	21.9	70	18.4	379	100
Catching and folding,	22	6.8	89	27.4	146	44.9	53	16.3	12	3.7	2	.6	1	.3	325	100
Miscellaneous flat-work ironing,	19	6.5	80	27.7	120	41.5	47	16.3	17	5.9	6	2.1	—	—	289	100
Feeding,	10	3.7	67	25.3	130	49.1	39	14.7	18	6.8	—	—	1	.4	265	100
Starching and dampening,	11	6.3	23	13.2	32	18.4	25	14.4	28	16.1	31	17.8	24	13.8	174	100
Collar ironing and finishing,	1	.9	9	8.2	29	26.4	36	32.7	23	20.9	5	4.5	7	6.4	110	100
Body and sleeve ironing, <i>i. e.</i> ,	3	3.3	4	4.3	12	13.0	17	18.5	25	27.2	16	17.4	15	16.3	92	100
Inspecting, shirt and coat folding,	—	—	1	2.1	5	10.4	14	29.2	10	20.8	7	14.6	11	22.9	48	100
Sewing and mending,	3	7.5	—	—	5	12.5	10	25.0	11	27.5	6	15.0	5	12.5	40	100
Cuff, neckband and yoke machine operating, ¹	—	—	—	—	7	21.2	13	39.4	8	24.2	3	9.1	2	6.1	33	100
Bosom press operating,	—	—	—	—	—	—	2	7.4	7	26.0	9	33.3	9	33.3	27	100
Hand washing,	—	—	—	—	—	—	6	35.3	4	23.5	5	29.4	2	11.8	17	100
Miscellaneous,	12	4.3	40	14.2	79	28.1	59	21.0	49	17.5	27	9.6	15	5.3	281	100
Total,	242	8.2	498	16.8	785	26.5	513	17.3	396	13.4	284	9.6	243	8.2	2,961	100

TABLE I. (b). — *Average Weekly Earnings: by Occupations (Cumulative).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Shaking,	34.5	67.8	93.7	99.3	100.0	100.0	—
Marking and sorting, . . .	1.2	7.3	22.4	44.4	62.2	81.5	18.5
Hand ironing, . . . . .	.8	3.4	13.7	32.5	59.6	81.6	18.4
Catching and folding, . . .	6.8	34.2	79.1	95.4	99.1	99.7	.3
Miscellaneous flat-work ironing,	6.5	34.3	75.8	92.0	97.9	100.0	—
Feeding,	3.7	29.1	78.1	92.8	99.6	99.6	.4
Starching and dampening, . .	6.3	19.5	37.9	53.3	68.4	86.2	13.8
Collar ironing and finishing, .	.9	9.1	35.5	68.2	89.1	93.6	6.4
Body and sleeve ironing, . . .	3.3	7.6	20.7	39.1	66.3	83.7	16.3
Inspecting, shirt and coat fold- ing.	—	2.1	12.5	41.7	62.5	77.1	22.9
Sewing and mending,	7.5	7.5	20.0	45.0	72.5	87.5	12.5
Cuff, neckband and yoke ma- chine operating.	—	—	21.2	60.6	84.9	93.9	6.1
Bosom press operating, . . .	—	—	—	7.4	33.3	66.7	33.3
Hand washing,	—	—	—	35.3	58.8	88.2	11.8
Miscellaneous,	4.3	18.5	46.6	67.6	85.1	94.7	5.3
Total,	8.2	25.0	51.5	68.8	82.2	91.8	8.2

TABLE II. — *Weekly Rates: by Occupations.*

NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —																
OCCUPATIONS.	\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		TOTAL.	
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Shaking,	5	1.1	177	40.1	137	31.1	99	22.4	21	4.8	2	.5	—	—	441	100
Marking and sorting,	1	.2	3	.7	32	7.7	69	16.6	84	20.1	69	16.6	139	38.1	417	100
Hand ironing,	—	—	—	—	3	.9	24	7.1	76	22.4	96	28.3	140	41.3	339	100
Catching and folding,	—	—	20	6.3	123	38.6	128	40.1	40	12.5	7	2.2	1	.3	319	100
Miscellaneous flat-work ironing,	1	.3	39	13.5	63	21.9	122	42.4	44	15.3	18	6.3	1	.3	288	100
Feeding,	—	—	6	2.3	91	34.5	124	47.0	35	13.2	6	2.3	2	.7	264	100
Starching and dampening,	3	1.8	11	6.7	24	14.5	28	17.0	27	16.4	25	15.1	47	28.5	165	100
Collar ironing and finishing,	—	—	1	.9	9	8.6	34	32.4	29	27.6	21	20.0	11	10.5	105	100
Body and sleeve ironing,	—	—	4	7.0	4	7.0	9	15.8	15	26.3	14	24.6	11	19.3	57	100
Inspecting, shirt and coat folding,	—	—	—	—	2	4.4	7	15.2	11	23.9	12	26.1	14	30.4	46	100
Sewing and mending,	—	—	—	—	2	5.0	5	12.5	15	37.5	7	17.5	11	27.5	40	100
Cuff, neckband and yoke machine operating,	—	—	—	—	—	—	7	24.1	14	48.3	5	17.2	3	10.3	29	100
Bosom press operating,	—	—	—	—	—	—	—	—	2	10.5	10	52.6	7	36.8	19	100
Hand washing,	—	—	—	—	—	—	1	6.2	4	25.0	3	18.8	8	50.0	16	100
Miscellaneous,	—	—	4	1.8	54	23.8	51	22.5	42	18.5	48	21.1	28	12.3	227	100
Total,	10	.4	265	9.6	544	19.6	708	25.5	459	16.5	343	12.4	443	16.0	2,772	100

NOTE. — Of the total 2,961 persons whose records were studied, weekly rates were not obtainable for 189 persons, of whom 107 were piece workers.

TABLE III.— *Average Weekly Earnings: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	29.3	62.5	70.3	81.9	90.8	96.4	3.6
No. 2,	4.4	19.3	34.3	51.4	65.7	84.0	16.0
No. 3,	—	1.2	13.8	33.5	56.9	69.5	30.5
No. 4,	1.3	19.5	75.5	90.6	94.3	99.4	.6
No. 5,	3.3	25.0	67.8	80.3	88.2	95.4	4.6
No. 6,	4.0	8.9	14.5	25.8	48.4	74.2	25.8
No. 7,	3.4	12.7	57.6	72.9	88.1	94.9	5.1
No. 8,	6.5	26.9	51.9	68.5	83.3	88.9	11.1
No. 9,	—	5.9	49.0	87.3	96.1	99.0	1.0
No. 10,	—	15.0	62.0	83.0	95.0	99.0	1.0
No. 11,	5.3	34.7	64.2	80.0	91.6	97.9	2.1
No. 12,	10.6	29.8	54.3	64.9	79.8	93.6	6.4
No. 13,	9.3	20.9	48.8	81.4	88.4	94.2	5.8
No. 14,	1.2	25.6	46.5	58.1	70.9	93.0	7.0
No. 15,	28.0	62.2	86.6	93.9	96.3	98.8	1.2
No. 16,	—	13.8	51.3	75.0	91.3	98.8	1.2
No. 17,	—	6.9	33.3	58.3	86.1	98.6	1.4
No. 18,	4.2	16.9	33.8	53.5	71.8	90.1	9.9
No. 19,	3.0	9.0	28.4	41.8	67.2	89.6	10.4
No. 20,	42.4	77.3	97.0	100.0	100.0	100.0	—
No. 21,	46.0	76.2	87.3	93.7	98.4	100.0	—
No. 22,	—	9.5	27.0	49.2	57.1	77.8	22.2
No. 23,	—	9.4	39.6	75.5	96.2	100.0	—
No. 24,	3.9	7.8	37.3	72.5	92.2	96.1	3.9
No. 25,	3.9	25.5	58.8	76.5	86.3	96.1	3.9
No. 26,	9.3	44.2	88.4	93.0	93.0	95.3	4.7
No. 27,	7.5	35.0	87.5	92.5	95.0	95.0	5.0
No. 28,	—	12.5	37.5	70.0	85.0	92.5	7.5
No. 29,	—	2.6	35.9	61.5	74.4	76.9	23.1
No. 30,	—	2.9	17.7	58.8	94.1	97.1	2.9
No. 31,	5.9	32.4	61.8	91.2	94.1	100.0	—
No. 32,	—	9.1	51.5	90.9	97.0	97.0	3.0
No. 33,	—	3.3	13.3	53.3	90.0	96.7	3.3
No. 34,	—	—	—	7.7	19.2	57.7	42.3
No. 35,	—	—	4.0	24.0	64.0	80.0	20.0
No. 36,	—	—	4.5	9.1	59.1	86.4	13.6
Total,	8.2	25.0	51.5	68.8	82.2	91.8	8.2

TABLE IV. — *Weekly Rates: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS WITH WEEKLY RATES OF —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	—	33.9	65.4	76.6	81.2	91.1	8.9
No. 2,	—	33.3	17.8	32.8	51.1	61.7	38.3
No. 3,	—	—	2.0	24.3	50.7	69.6	30.4
No. 4,	—	—	41.1	84.2	100.0	100.0	—
No. 5,	—	—	59.5	73.0	83.3	89.7	10.3
No. 6,	2.4	4.8	7.2	12.9	24.2	46.8	53.2
No. 7,	—	—	—	75.3	86.5	97.8	2.2
No. 8,	1.2	16.7	44.0	71.4	81.0	92.9	7.1
No. 9,	—	—	—	47.1	89.2	97.0	3.0
No. 10,	—	3.0	20.0	61.0	85.0	97.0	3.0
No. 11,	—	23.2	57.9	68.4	81.0	90.5	9.5
No. 12,	—	4.3	29.3	54.3	66.3	80.4	19.6
No. 13,	—	—	8.1	37.2	75.6	87.2	12.8
No. 14,	—	1.2	32.9	50.6	60.0	72.9	27.1
No. 15,	—	39.0	60.9	90.2	93.9	96.3	3.7
No. 16,	—	2.7	10.7	62.7	72.0	94.7	5.3
No. 17,	—	4.2	7.0	27.8	70.9	90.3	9.7
No. 18,	—	—	2.4	14.6	31.7	43.9	56.1
No. 19,	—	—	9.0	23.9	40.3	62.7	37.3
No. 20,	—	56.1	84.9	97.0	100.0	100.0	—
No. 21,	9.5	57.1	77.7	92.0	96.8	98.4	1.6
No. 22,	—	2.2	22.2	44.4	66.7	75.6	24.4
No. 23,	—	—	30.2	56.6	88.7	100.0	—
No. 24,	—	—	8.0	40.0	76.0	92.0	8.0
No. 25,	—	—	31.4	68.6	78.4	88.2	11.8
No. 26,	—	4.6	41.8	88.4	90.7	93.0	7.0
No. 27,	—	—	37.5	85.0	92.5	95.0	5.0
No. 28,	—	7.5	17.5	32.5	57.5	75.0	25.0
No. 29,	—	—	12.8	48.7	56.4	71.8	28.2
No. 30,	—	—	—	15.3	84.9	90.9	9.1
No. 31,	—	—	—	13.3	80.0	93.3	6.7
No. 32,	—	—	—	90.9	97.0	97.0	3.0
No. 33,	—	—	3.3	30.0	50.0	96.7	3.3
No. 34,	—	—	—	3.8	3.8	42.3	57.7
No. 35,	—	—	—	—	—	72.0	28.0
No. 36,	—	—	—	4.5	13.6	54.5	45.5
Total, . . . . .	.4	10.0	29.5	55.1	71.6	84.0	16.0

TABLE V. — *Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 30, . . .	4	—	—	—	—	—	—	4
30 and less than 34, . .	5	3	—	—	—	—	—	8
34 and less than 38, . .	4	3	—	1	—	—	—	8
38 and less than 42, . .	4	15	10	1	1	—	1	32
42 and less than 46, . .	3	16	24	16	8	1	14	82
46 and less than 50, . .	7	29	51	29	29	23	13	181
50 and less than 54, . .	2	20	62	55	42	29	21	231
54 and over, . . .	—	3	8	8	3	1	2	25
Total, . . .	29	89	155	110	83	54	51	571

NOTE. — Data concerning hours were not available for 2,390 workers.

TABLE VI. — *Hours of Labor: by Establishments (Cumulative).*

ESTAB- LISHMENTS.	PER CENT. OF WORKERS WORKING —							54 Hours and over.
	Less than 30 Hours.	Less than 34 Hours.	Less than 38 Hours.	Less than 42 Hours.	Less than 46 Hours.	Less than 50 Hours.	Less than 54 Hours.	
No. 6, . . .	—	—	2.4	5.6	28.2	66.1	100.0	—
No. 7, . . .	—	4.3	4.3	13.0	28.3	47.8	96.7	3.3
No. 8, . . .	—	—	—	4.1	15.3	38.8	89.8	10.2
No. 11, . . .	—	1.1	1.1	6.6	11.0	41.8	87.9	12.1
No. 13, . . .	4.7	8.1	12.8	22.1	43.0	76.7	100.0	—
No. 25, . . .	—	—	2.0	4.0	14.0	68.0	98.0	1.0
No. 33, . . .	—	—	—	6.7	13.3	43.3	100.0	—
Total, . . .	.7	2.1	3.5	9.1	23.5	55.2	95.6	4.4

NOTE. — Data concerning hours were not available in 29 establishments.

TABLE VII. — *Fluctuation of Employment among 2,961 Workers: by Occupations.*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
Slaking,	3.4	7.2	10.6	12.4	15.1	18.7	25.5	27.9	38.7	49.8	65.5	100
Marking and sorting,	13.7	44.6	49.8	52.6	55.8	62.0	67.8	69.8	75.5	82.2	86.7	100
Hand ironing,	10.3	32.2	37.2	38.8	42.5	46.7	52.0	56.7	63.6	72.3	82.3	100
Cuteling and folding,	9.5	20.0	26.1	28.6	32.0	36.3	39.4	43.7	53.8	63.4	75.1	100
Miscellaneous flat-work ironing,	5.9	13.8	16.3	19.0	22.5	25.3	30.4	34.6	45.0	56.7	71.3	100
Feeding,	8.3	21.5	26.4	29.1	31.7	39.2	44.9	48.3	54.3	62.3	72.8	100
Starcling and daupening,	14.4	42.5	46.0	49.4	50.6	58.0	62.6	66.1	71.8	75.3	84.5	100
Collar ironing and finishing,	7.3	34.5	35.5	39.1	44.5	48.2	50.8	53.6	66.4	75.5	82.7	100
Body and sleeve ironing,	15.2	34.8	39.1	45.7	50.0	55.4	60.9	65.2	70.7	75.0	83.7	100
Inspecting, shirt and coat folding,	18.8	52.1	60.4	64.6	68.8	72.9	72.9	79.2	83.3	89.6	91.7	100
Sewing and mending,	20.0	35.0	37.5	40.0	45.0	47.5	47.5	55.0	62.5	72.5	82.5	100
Cuff, neckband and yoke machine operating,	12.1	45.5	48.5	57.6	60.6	66.7	69.7	69.7	87.9	93.9	93.9	100
Bosom press operating,	22.2	51.9	55.6	55.6	66.7	70.4	74.1	77.8	85.2	89.0	92.6	100
Hand washing,	23.5	47.0	58.8	70.6	70.6	70.6	70.6	70.6	70.6	76.5	76.5	100
Miscellaneous,	6.0	13.2	16.0	19.6	22.7	26.3	29.9	31.7	43.8	54.8	69.4	100
Total,	9.4	25.9	30.2	33.0	36.2	40.9	45.7	49.1	57.6	66.4	77.1	100

TABLE VIII. — *Fluctuation of Employment among 2,961 Workers: by Establishments.*

ESTABLISHMENTS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											
	12	11	10	9	8	7	6	5	4	3	2	1
No. 1.	5.9	9.9	13.2	14.5	16.1	19.4	21.7	24.7	34.2	46.4	59.5	100
No. 2.	7.2	22.7	26.0	28.2	32.0	39.2	44.2	46.4	53.6	60.8	78.5	100
No. 3.	8.4	41.9	45.5	50.9	53.3	60.5	64.1	70.7	74.3	80.8	89.2	100
No. 4.	11.9	28.3	32.7	34.6	39.0	43.4	48.4	49.7	66.7	71.7	83.0	100
No. 5.	2.6	13.8	15.1	17.1	18.4	23.0	28.9	32.2	38.8	50.7	65.8	100
No. 6.	5.6	41.9	49.2	50.8	51.6	53.2	58.1	60.5	66.9	77.4	84.7	100
No. 7.	16.1	27.1	31.4	32.2	35.6	39.8	44.1	49.2	55.9	66.9	75.4	100
No. 8.	13.0	33.3	38.0	39.8	42.6	49.1	56.5	60.2	62.0	67.6	80.6	100
No. 9.	12.7	19.6	23.5	30.4	34.3	37.3	43.1	50.0	61.8	74.5	83.3	100
No. 10.	6.0	17.0	24.0	26.0	30.0	36.0	43.0	46.0	57.0	64.0	79.0	100
No. 11.	9.5	14.7	18.9	21.1	23.2	28.4	34.7	38.9	48.4	53.7	63.2	100
No. 12.	6.4	20.2	25.5	29.8	34.0	37.2	45.7	50.0	60.6	72.3	78.7	100
No. 13.	2.3	24.4	26.7	29.1	32.6	36.0	39.5	44.2	55.8	64.0	76.7	100
No. 14.	7.0	47.7	52.3	55.8	60.5	61.6	64.0	65.1	73.3	79.1	83.7	100
No. 15.	3.7	12.2	20.7	28.0	35.4	40.2	43.9	48.8	53.7	67.1	79.3	100
No. 16.	15.0	37.5	45.0	48.8	55.0	57.5	66.3	66.3	73.8	83.8	87.5	100
No. 17.	29.2	58.3	62.5	65.3	66.7	68.1	70.8	75.0	80.6	86.1	91.7	100
No. 18.	7.0	28.2	35.2	36.6	36.6	40.8	47.9	49.3	54.9	60.6	73.2	100
No. 19.	0.0	37.3	44.8	44.8	49.3	55.2	58.2	59.7	71.6	74.6	83.6	100
No. 20.	7.6	9.1	9.1	9.1	10.0	13.6	24.2	25.8	40.9	53.0	72.7	100
No. 21.	4.8	7.9	11.1	12.7	14.3	31.7	36.5	39.7	50.8	58.7	69.8	100
No. 22.	17.5	41.3	44.4	46.0	50.8	61.9	69.8	73.0	81.0	92.1	96.8	100
No. 23.	18.9	43.4	52.8	56.6	58.5	60.4	60.4	60.4	66.0	71.7	83.0	100
No. 24.	11.8	25.5	27.5	31.4	39.2	41.2	41.2	45.1	52.9	62.7	72.5	100
No. 25.	3.9	27.5	29.4	33.3	33.3	37.3	43.1	43.1	58.8	62.7	78.4	100
No. 26.	13.9	27.9	32.6	39.5	46.5	48.8	51.2	58.1	65.1	74.4	83.7	100
No. 27.	2.5	5.0	5.0	5.0	5.0	10.0	15.0	20.0	22.5	30.0	40.0	100
No. 28.	5.0	15.0	15.0	22.5	27.5	35.0	45.0	45.0	65.0	75.0	77.5	100
No. 29.	12.8	30.8	30.8	33.3	38.5	41.0	43.6	48.7	61.5	71.8	79.5	100
No. 30.	11.8	32.3	32.3	35.3	47.1	47.1	53.0	55.9	63.7	79.4	85.3	100
No. 31.	2.9	8.8	14.7	14.7	20.6	26.5	32.4	32.4	38.2	50.0	58.8	100
No. 32.	15.2	30.3	36.4	36.4	42.4	45.5	54.5	54.5	57.6	63.0	72.7	100
No. 33.	30.0	46.7	56.7	56.7	63.3	66.7	73.3	80.0	80.0	86.7	96.7	100
No. 34.	30.8	38.5	42.3	46.2	50.0	57.7	61.5	69.2	76.9	80.8	96.2	100
No. 35.	4.0	20.0	24.0	40.0	40.0	52.0	52.0	52.0	60.0	72.0	76.0	100
No. 36.	18.2	45.5	50.0	59.1	59.1	63.6	63.6	68.2	77.3	81.8	86.4	100
Total.	9.4	25.9	30.2	33.0	36.2	40.9	45.7	49.1	57.6	66.4	77.1	100

DIAGRAM II.

CURVE SHOWING PER CENT. OF EMPLOYMENT FOR 2,961 LAUNDRY WORKERS DURING 52 WEEKS.

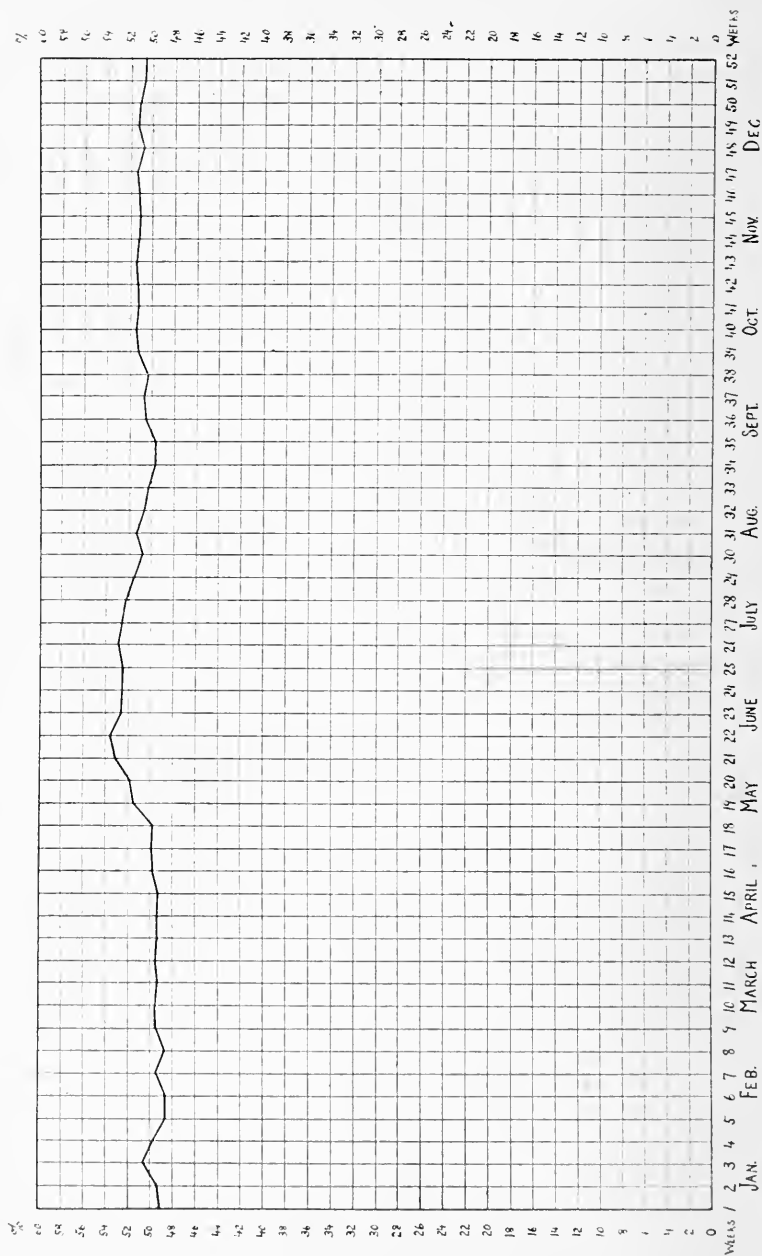


TABLE IX. (a). — *Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
14 and less than 16, .	5	15	8	—	—	—	—	28
16 and less than 18, .	5	29	39	25	8	2	—	108
18 and less than 21, .	4	18	52	54	38	17	8	191
21 and less than 25, .	7	25	79	80	57	37	20	305
25 and less than 30, .	3	7	37	30	36	30	40	183
30 and less than 35, .	3	9	17	12	17	12	28	98
35 and less than 40, .	1	10	25	17	22	19	25	119
40 and less than 45, .	4	7	10	12	17	8	17	75
45 and less than 50, .	1	6	8	7	5	10	13	50
50 and less than 55, .	2	6	5	8	6	5	3	35
55 and less than 60, .	—	2	3	2	3	3	1	14
60 and over,	2	1	—	3	1	1	1	9
Total,	37	135	283	250	210	144	156	1,215

NOTE. — Data for age were not available for 1,746 workers.

TABLE IX. (b). — *Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
14 and less than 16, .	5	20	28	28	28	28	—
16 and less than 18, .	5	34	73	98	106	108	—
18 and less than 21, .	4	22	74	128	166	183	8
21 and less than 25, .	7	32	111	191	248	285	20
25 and less than 30, .	3	10	47	77	113	143	40
30 and less than 35, .	3	12	29	41	58	70	28
35 and less than 40, .	1	11	36	53	75	94	25
40 and less than 45, .	4	11	21	33	50	58	17
45 and less than 50, .	1	7	15	22	27	37	13
50 and less than 55, .	2	8	13	21	27	32	3
55 and less than 60, .	—	2	5	7	10	13	1
60 and over,	2	3	3	6	7	8	1
Total,	37	172	455	705	915	1,059	156

NOTE. — Data for age were not available for 1,746 workers.

TABLE X. — *Home Conditions and Average Weekly Earnings*
(Cumulative).

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —						
	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Living at home, . . .	27	131	358	548	712	831	114
Living away from home,	9	40	91	150	201	230	43
Total, . . .	36	171	449	698	913	1,061	157

NOTE. — Data concerning home conditions were not available for 1,743 workers.

TABLE XII. — *Average Weekly Earnings: by Years of Experience.*

YEARS' EXPERIENCE.	NUMBER OF WORKERS EARNING —							Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 1,	33	60	72	35	16	5	1	222
1 and less than 2,	—	23	43	30	22	8	6	132
2 and less than 3,	—	14	42	38	19	5	1	119
3 and less than 4,	1	10	22	28	26	11	4	102
4 and less than 5,	1	6	29	23	27	9	9	104
5 and less than 6,	—	2	5	18	11	12	12	60
6 and less than 7,	—	—	10	12	8	15	12	57
7 and less than 8,	—	—	7	17	15	15	9	63
8 and less than 9,	—	1	8	6	11	4	12	42
9 and less than 10,	1	—	2	2	6	5	9	25
10 and less than 11,	—	1	5	5	14	12	10	47
11 and less than 12,	—	—	—	—	3	1	4	8
12 and less than 13,	—	—	—	2	2	9	8	21
13 and less than 14,	—	—	2	1	2	2	9	16
14 and less than 15,	—	1	—	1	6	3	3	14
15 and over,	—	1	—	9	9	16	34	69
Total,	36	119	247	227	197	132	143	1,101

NOTE. — Data concerning years' experience were not available for 1,860 persons.

WAGES OF WOMEN IN RETAIL STORES IN MASSACHUSETTS.

NUMBER OF EMPLOYEES.

The occupation of selling goods is a form of employment which is becoming of increasingly great importance with the proportionate growth in the complexity of the whole industrial system. When selling was a simple matter of bargaining between producer and consumer such an occupation as that of salesperson was an entirely unnecessary one. With the widening of markets and the development of transportation, the presence of a new agency became necessary. The rise of the factory system and its development to its present extent infinitely multiplied the possibilities and opportunities of the selling class, until at the present time it constitutes one of the most important units in the industrial group. In common with other commercial occupations in this country the proportion of women employees in this field has grown rapidly in recent years. The wage-earning employees in this class constitute a body of workers for whom the requirements and conditions of labor are markedly different from those of employees in industrial establishments. Nevertheless, the Federal and State censuses have until recently failed to accord to this group the amount of attention and space which its size and importance merit.

The most recent material available regarding the number and characteristic features of the total group of salesmen and saleswomen in the United States is found in the thirteenth census. If the occupations of women listed in this census are arranged in the order of numbers included, irrespective of whether they are found under manufacturing, professional service or other inclusive classifications, the occupation of saleswoman ranks ninth. The list of the first ten gainful pursuits in order of numbers of women employed in the country as a whole is as follows:¹—

¹ United States, thirteenth census, Vol. IV., pp. 302-433.

OCCUPATION.	Number of Females over Ten Years.
1. Farm laborers (home farm),	1,176,585
2. Servants (not otherwise specified),	914,063
3. Laundresses (not in laundry),	520,004
4. Teachers (school),	476,864
5. Farm laborers (working out),	337,522
6. Cooks,	332,546
7. Dressmakers (not in factory),	319,593
8. Farmers,	257,703
9. Saleswomen,	250,438
10. Housekeepers and stewards,	173,056

The number of saleswomen recorded is probably smaller than the number actually employed at that occupation at the time of enumeration, according to a statement made on page 22 of Volume IV. (population) of the thirteenth census. The comment is as follows:—

Clerks in Stores and Salesmen.—Although instructed specifically to the contrary, many of the thirteenth census enumerators failed utterly—as did the enumerators at preceding censuses—to distinguish between the clerks and the salesmen employed in wholesale and retail trade. The tendency was to return salesmen as clerks, although their duties were in no sense clerical. As a result, the statistics reporting the number in each of these occupations, respectively, are far from accurate. This is indicated by the fact that the number of salesmen and saleswomen reported is less than three-fourths the number of wholesale and retail merchants and dealers, and by the further fact that there are reported more than two clerks in stores for each five salesmen and saleswomen. Similar figures were reported at the twelfth census.

In the occupations of women in the State of Massachusetts saleswomen are the ninth largest group. For Massachusetts the list of the first ten employments is as follows:¹—

¹ United States, thirteenth census, Vol. IV., pp. 473, 474.

OCCUPATION.	Number of Females over Ten Years.
1. Servants,	64,315
2. Cotton mills (all occupations),	47,283
3. Shoe factories,	25,685
4. Dressmakers and seamstresses (not in factory),	20,332
5. Teachers (school),	20,133
6. Bookkeepers, cashiers and accountants,	19,916
7. Sewers and sewing machine operators (factory),	18,121
8. Stenographers and typewriters,	16,823
9. Saleswomen (stores),	16,817
10. Woolen and worsted mills (all occupations),	15,105

METHOD AND SCOPE OF THE INQUIRY.

The field work for the study of retail stores was carried on in the months of August, September, October and November, 1914. The study includes twenty-six establishments, selected in such a manner as to be as nearly representative as possible of the important kinds of retail stores in the State. Department stores of the largest type, found mainly in Boston, smaller retail stores characteristic of Boston and smaller cities as well, and a group of five-and-ten cent stores in Boston and outside of the metropolitan district make up the group taken into consideration. A transcript of the payroll records for the year preceding the date of the initiation of the study was taken for each female employee in the twenty-six stores. In as many cases as possible schedules were also made out by the women employees themselves, giving such information as their age, marital condition, experience in occupational life and living arrangements. In addition, a thorough inspection of each store was made for the purpose of studying the work of the salespeople in the different departments and the store organization and management.

CO-OPERATION WITH THE UNITED STATES BUREAU OF LABOR STATISTICS.

The co-operation of the United States Bureau of Labor Statistics and the United States Commission on Industrial Relations with the commission has made possible a detailed study of the unemployment situation in retail stores in this State. Concerning the scope and method of the work, the following statement is made by the Federal Bureau:—

The principal information sought in this investigation is the amount and causes of unemployment of women in retail stores. By this is meant all unemployment during the year under consideration, including both the scattered days without work during the period of employment and the full weeks without work preceding or following employment or intervening between two periods of employment.

The aim of the present unemployment study has been to secure from personal interviews with women employed in retail stores, or with members of their immediate families, information concerning a group of individuals sufficiently large to be considered representative of the whole industry. For this purpose 20 per cent. of the total number of women who had appeared during the year under consideration on the pay rolls of the selected establishments was taken as constituting a percentage large enough to give fair representation. Each establishment was given a representation proportionate to the number of women on its pay roll, and all occupations and departments were represented.

A complete record is taken from the establishment of all employment, together with the rate of pay and actual earnings during the year under consideration. This is supplemented by a record of the amount of employment and earnings at other establishments as given by the individual herself in following interviews, in case she has worked in other establishments during the year.

In the unemployment study the following groups are taken into consideration:—

- (a) The *regular* employees, or those employed steadily for full time.
- (b) The *extra* employees, or those who are engaged for short periods only, or who work only a part of the week.

In considering the "regulars" it was decided to confine the interviews between the agents of the Bureau and the retail store employees to those whose records at the establishment where they were employed showed six days or more of absence, and simply to enumerate those whose records showed less than six days of absence during the whole year. In considering the "extras," since none of the members of the group was employed for a full year, the selection for personal

visits was made at random so that they might be taken without reference to the length of their employment and so include all variations in time of employment.

In addition to the information detailed above the study seeks to determine how many of the "extras" desired *regular* employment, how many desired more *extra* work, and what other occupation they had when not employed as "extras."

The causes of unemployment will be grouped under several main heads and subdivided with as much detail as the information will permit. In addition, certain other information pertinent to such a study will be treated, namely, the age and conjugal condition of the individual, her living arrangements (living at home or boarding), the degree of dependency upon her own earnings and on the earnings of her family or relatives, her education (including vocational training), her financial provision against unemployment due to illness, and the methods which she uses in seeking work.

The completed report will be issued as a bulletin of the United States Bureau of Labor Statistics.

DEPARTMENT STORE ORGANIZATION.

A brief outline of the principal features of a typical store organization is essential to a comprehension of the position of women workers in retail trade. Although the degree of complexity of management varies, not only between establishments of different sizes and kinds, but also in many cases between those of equal size and with the same kind of business, all retail stores are organized on the same general lines.

At the head of the management is the owner, or the stockholders if the firm is incorporated. All matters of general policy are decided by the firm, members of which usually hold the most important offices of the active management. In small establishments the owner or owners handle all the executive work themselves; in large establishments it is necessary to delegate much of this to subordinates, and the owner or head of the firm usually occupies the position of general manager.

The management of a typical department store falls into the four following divisions: —

1. Merchandise management, which covers all matters concerned with the buying and selling of goods.

2. General store management, which is concerned with all details of store service.

3. Publicity management, including advertising, window trimming and store decoration.

4. Financial management, which includes the keeping of all books and statistical records and the management of the cash and credit systems.

The merchandise manager is responsible for the purchase and sale of all goods handled by the store. Frequently, especially in small establishments, the general manager is also merchandise manager. Where the business is not large, he himself, with the aid of one or more assistant buyers, purchases and marks all the goods, makes plans for sales and displays, and has personal charge of all sales departments. In a large department store, however, it is impossible for one man to attend to all the details of merchandise management, and a group of subordinate managers known as buyers are employed, each of whom has charge of one or more sales departments. To each buyer a certain sum is allotted for the purchase of his stock, but aside from this restriction on his purchasing power he is practically an independent storekeeper in his own department. His function is to buy and sell goods of such a kind, at such prices, and in such quantities as to insure to the store a reasonable profit on the sum expended. The buyer, who is frequently a salesman as well, is always at the head of the selling force of his department, and in all matters pertaining to the work of the department the salespeople are directly responsible to him. Where alteration or other workrooms are connected with a sales department, they are always under the management of the buyer. No buyer can attempt to purchase goods without keeping in touch with popular demand, and where he is not himself an active member of the selling force he is aided in the selection and marking of goods by an assistant buyer, who is usually the chief sales person and head of stock in the department. The occupations of buyer and assistant buyer are of special interest, because they are the only managerial positions generally open to women in department stores. Wage data have not been tabulated for these occupations, but women buyers or assistant buyers were found on the pay rolls of almost all the larger Boston

stores studied by the commission, receiving salaries that range from \$9 a week to over \$7,000 a year. Outside of Boston these positions are held generally by men, and the salaries for women rarely exceed \$25 a week. An idea of the proportion which these employees form of the total number of women in department stores is given by the figures secured in the Federal study of woman and child wage earners,¹ where out of a total of 35,772 women employed in 26 stores of New York, Chicago and Philadelphia in the year 1909, only 418, or 1.2 per cent., were buyers and assistant buyers.

The care of a large building through which constantly pass streams of customers in need of quick and efficient personal service obviously requires a special corps of employees, whose duties are to look to the upkeep, order, service and discipline of the establishment. In charge of this division is the superintendent, who is directly responsible to the general manager, although in some large and highly organized establishments there is a store manager, usually a member of the firm, whose powers and responsibilities are greater than those of the superintendent who works under him. Under his management are the delivery system, the messenger service, the direction of customers, and the cleaning, repairs, heating and lighting of the building. He also has charge of all matters concerned with the hiring, discharge, education and discipline of the selling force and all other persons employed in the store. His most important aides are the floor managers, who are stationed all through the sales departments to see that customers are properly served and that discipline is maintained among the employees.

As the object of publicity is to promote the sale of goods, the advertising staff is frequently, especially in smaller stores, under the direction of the merchandise or general manager. In the larger and more up-to-date establishments there is a tendency to employ a high-grade publicity manager, who ranks with the merchandise manager and is frequently a member of the firm. Under his direction are the copy writers, window trimmers and card writers.

In charge of the financial management is the treasurer or

¹ "Woman and Child Wage Earners in the United States," Vol. V., p. 41.

comptroller. Under his general direction are the cash system, the charge or credit office, the auditing and statistical departments, and the large force of bookkeepers, billing clerks, stenographers, and other clerical workers necessary to the proper management of a retail business.

THE ORGANIZATION OF THE FIVE-AND-TEN CENT STORES.

The organization in establishments of this type differs from that of retail stores in general. This is due in part to the fact that the five-and-ten cent stores belong to chains of similar establishments located throughout the country, controlled by a central management, and in part to the character of goods sold. Much of the work at the local stores is planned at the home office, and merchandise is contracted for on a large scale by corporation buyers. Each store is under the charge of a general manager, who orders the stock, engages the employees, and is responsible for the financial success of the establishment. Outside of certain restrictions made by the central office regarding general policy and the purchase of goods, the manager has the freedom of an independent storekeeper in his own establishment. He fixes the scale of wages to be paid, although the general management usually expects that wages shall not exceed a certain percentage of total sales.

Under the general manager is an assistant superintendent, who is in charge of the floor, and usually attends to minor details connected with the hiring and discipline of employees. Under him is a corps of floor managers, some of whom are women. With the exception of these and a small number of office assistants all female employees in these establishments are saleswomen, who wrap bundles and act as cashiers for their own sales. Salesmanship is more largely mechanical in the stores where the goods are so marked and displayed as practically to sell themselves.

INQUIRY INTO SELLING AND OTHER ITEMS OF OPERATING EXPENSE.

In connection with the study of the wage situation in retail stores, a circular letter was sent to a number of representative firms throughout the State asking for information on the following points: —

1. Average selling cost by departments for a period of one year. By this is meant a pay-roll ratio, the total wages of the selling force (not including buyers) being expressed as a percentage on the total sales of each department.

2. Average total operating expense for one year, expressed as a percentage of the total sales for that period, and apportioned to the various items of cost, as wages of sales force, buyers' salaries, general wage, rent, advertising, etc.

Replies were received from 11 establishments, comprising 8 department stores, 2 specialty shops, and 1 five-and-ten cent company. Of the department stores and specialty shops 6 are located in Boston and the rest in 3 of the other cities of the State. As the figures for the five-and-ten cent company cover the expense of all the stores operated under the company management throughout the United States, they could not be used as accurately representative of the individual establishments in this State.

According to the figures received, the total operating expense for the 10 stores ranged from 28.5 to 18.0 per cent., with an average of 25.4 per cent. The selling cost (based on salaries of salespersons only) averaged 6.9 per cent., the highest figure recorded being 12.3 per cent., the lowest 4.0 per cent. The item of rent (including interest, taxes, insurance, light and heat) ranged from 3.0 to 7.1 per cent., with an average of 4.8 per cent., while advertising and display ranged from 2.2 to 5.5 per cent. and averaged 3.3 per cent. The figures furnished by the several firms were based on such varied systems of expense distribution that it was not possible, from the limited number of answers received, to find a sufficiently representative average for any of the other items of expense.

Owing to the fact that there is lack of uniformity in the classification and grouping of departments in the different establishments, comparative figures are given only for the following departments: —

NAME OF DEPARTMENT.	SELLING COST.		
	Lowest Percentage.	Highest Percentage.	Percentage about which there is a Concentration.
1. Cloaks, suits and dresses,	3.2	7.1	6.0
2. Millinery,	5.8	15.0	8.7
3. Waists,	3.9	9.3	6.0
4. Notions,	8.2	10.2	9.2
5. Laces,	5.3	9.8	—
6. Ribbons,	3.8	10.5	7.0

It will be seen from the last column of the above table that the selling cost is highest in the notion and lowest in the cloak, suit and dress departments. These figures are of special interest when compared with the table on page 99, showing earnings paid in the same departments in eighteen of the establishments where the wage records were taken by the commission.¹ Here earnings are shown to be highest in the cloak and suit and lowest in the notion department.

The notion and other departments which deal in small and low-priced articles are regarded in most instances as in themselves earning little or no income for the stores, but are maintained because if their conveniences were not offered to the public, trade would fall off in other departments.

¹ In only eighteen of the establishments studied was the departmental classification of such similarity as to permit the grouping.

Average Weekly Earnings of Saleswomen in Six Departments.

DEPARTMENTS.		NUMBER AND PER CENT. OF SALESWOMEN EARNING —																TOTAL.							
		UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND UNDER \$10.				\$10 AND UNDER \$11.		\$11 AND UNDER \$12.		\$12 AND OVER.	
Number.		Per Cent.	Number.		Per Cent.	Number.		Per Cent.	Number.		Per Cent.	Number.		Per Cent.	Number.		Per Cent.	Number.		Per Cent.	Number.		Per Cent.		
Cloaks, suits and dresses,		7	3.4	3	1.4	5	2.4	3	1.4	8	3.9	21	10.2	16	7.7	20	9.7	18	8.7	17	8.2	89	43.0	207	100
Millinery,		11	5.4	4	2.0	10	4.9	16	7.8	23	11.3	45	22.1	26	12.7	22	10.8	9	4.4	13	6.4	25	12.2	204	100
Waists,		17	11.8	2	1.4	3	2.1	11	7.6	24	16.7	31	21.5	16	11.1	22	15.3	5	3.5	8	5.5	5	3.5	144	100
Notions,		7	5.2	6	4.5	15	11.1	28	20.7	27	20.0	34	25.2	9	6.7	6	4.5	1	7	1	7	1	7	135	100
Laces,		4	4.1	2	2.0	9	9.2	8	8.2	14	14.3	17	17.4	15	15.3	18	18.4	5	5.1	3	3.0	3	3.0	98	100
Ribbons,		—	—	—	—	5	7.6	10	15.2	13	19.7	16	24.2	9	13.6	7	10.6	—	—	4	6.1	2	3.0	66	100
Total,		46	5.4	17	2.0	47	5.5	76	8.9	109	12.8	164	19.2	91	10.7	95	11.1	38	4.4	46	5.4	125	14.6	854	100

NOTE. — The saleswomen included in this table are those who worked in only the specified department during the year.

It clearly appears that high wages do not necessarily mean for a given establishment a high selling cost. On the contrary, establishments paying high wages are among those with the lowest selling cost, as shown by the accompanying figures, taken from four stores of sufficient similarity for comparison. It is not possible to estimate the extent to which this fact is due to the character of the goods sold, or to what extent to the efficiency of management in general. The department stores and shops selling high-priced goods are those in which the high wages are found.

	Per Cent. of All Saleswomen receiving \$10 and Over.	Per Cent. of Selling Cost.
Establishment A,	6.9	12.3
Establishment B,	13.7	9.9
Establishment C,	53.1	7.1
Establishment D,	74.6	4.2

Here it is shown that for a given number of establishments wages and selling cost vary inversely, and the establishment with the lowest selling cost has quite as markedly the largest number of high-paid employees.

Consequently, the conclusion seems justifiable that if the adjustment is carefully made higher wages would not increase the selling cost for the establishments for which it is already high, but would probably diminish it.

THE OCCUPATIONS.

Saleswomen. — Salespeople form the most numerous and important group of department store employees. Except in a few special departments, women are almost exclusively employed in this occupation. In general, the duties of saleswomen are confined to the demonstration of goods and making and recording sales, but in some stores they also make change and wrap bundles. As a result of the great growth of retail trade, and the necessity of making a large number of sales in order to offset the small profits necessi-

tated by keen competition, the value of expert salesmanship in all departments is gaining increased recognition among store owners. Within the last few years courses in salesmanship for employees have been introduced in almost all the large Boston department stores, and also in some of the leading establishments in the smaller cities of the State. Similar courses have been offered within the last year as part of the Boston school system, thus placing the public sanction upon the recognition of retail selling as a skilled occupation. At the same time, it is recognized that education and experience alone are not sufficient for successful salesmanship. Certain intrinsic personal qualities, such as good health, a neat and pleasing appearance, a quick intelligence, tact, courtesy, accuracy and knowledge of human nature, are essential to the making of a first-class saleswoman.

Conditions of work for saleswomen vary in different establishments. Their duties are generally considered light and agreeable in comparison with other occupations open to the untrained woman, but the work of selling merchandise is often exhausting physically and nervously. The work is most trying in bargain basements and in stores carrying cheap lines where the crowds are great and the ventilation poor. But even in high-grade establishments, where much is done to insure the comfort of the employees, there are always rush days and busy seasons, and the greater mental effort required in effecting sales in high-priced lines may prove quite as much of a strain on the nervous system.

Stock Girls. — In order that the selling force may give all their attention to the making of sales, boys and girls are sometimes employed whose duties are to see that the stock is kept in order and replenished, to mark goods for the buyer and run errands for the department. Stock girls are employed mostly in the wearing apparel departments, where their chief care is to return to the hooks and shelves garments that have been brought out for the inspection of customers. Others work almost entirely in the stock rooms, going into the sales departments only when new stock is needed for the shelves. Boys, however, are usually employed in the stock-room work, and in other places where especially heavy loads

must be lifted and carried about. Stock girls are on their feet most of the time at work which often requires lifting and carrying. This occupation requires no especial skill, and is usually an apprenticeship for selling.

Counter Cashiers and Examiners. — In most of the largest mercantile establishments of the present day, where rapidity of service is of prime importance, the cash system is wholly or partially decentralized. Each department or section has its own cashiers, whose desks are located at central points behind the counters. In some stores change is made on the spot from a cash box or register; in others, the customer's money and sales slip are sent through pneumatic tubes to a central office, and in this case the counter cashier or tube girl acts merely in the capacity of an examiner or inspector, whose task it is to see that the sales slip and change are correct. In some establishments both cash registers and tubes are in use. Often it is the duty of the cashier to wrap purchases, although special bundle girls are sometimes employed. The occupation of cashier, although filled by young and inexperienced workers, is one of responsibility, and requires speed, accuracy and an ability to keep one's head under the strain of rush hours.

Messengers. — In order that the saleswoman need not leave her place at the counter to carry the goods, cash and sales slips of a completed sale to and from the cashier's desk, some stores employ young girls and boys known as messengers, tellers or cash girls and cash boys, whose chief duty it is to do this work. They also run errands, and make themselves generally useful in the departments to which they are attached. As cash systems have become more and more decentralized, many stores have given up the employment of messengers altogether. Their work is entirely unskilled and involves little personal responsibility.

Office Employees. — A large force of clerical workers of many types and grades is needed to carry on the work of a modern department store. By far the greater number of these are women. Clerical employees in a department store work under conditions which are in general similar to those

in other offices. Space is of great value in department stores, and the offices are sometimes overcrowded and noisy.

Workroom Employees. — Department stores selling women's ready-made garments have alteration rooms, where fitters, sewers and ironers are employed. The fitters, who are experienced dressmakers and receive high pay, fit the garments on the customers, and plan and direct the work of alteration. The sewing women rip, cut, baste and restitch the garments according to the marks and instructions of the forelady and fitters. Pressing is usually done by men. Conditions of work are similar to those in other garment workshops. Store alteration rooms are in general airy and well lighted. The worst feature of this occupation is its seasonal nature, which not only means crowded workrooms during the busy season, but also unemployment for part of the workers for several months during the year. Some go out as day seamstresses when they have no work in the stores, but it is doubtful whether alteration work provides an adequate training for general dressmaking. In certain stores workroom employees are put into sales departments during dull seasons, but provision for only a small number can be made in this way.

In the majority of the department stores a millinery workroom is maintained, and in some of the larger establishments there are also upholstery, drapery, carpet, corset and other workrooms, in all of which women are employed. In none of these, except in the millinery department, is unemployment so serious a problem as in the alteration rooms.

METHOD OF TREATING WAGE MATERIAL.

In the preparation of the material for tabulation, all records of persons who appeared on the pay roll for less than four weeks out of the fifty-two under consideration were thrown out. This was done in order that the conclusions reached might apply only to workers who could legitimately be considered a part of the normal working force of retail stores.

In computing weekly earnings the procedure for each

individual was as follows: the sum of all payments made during the fifty-two week period, including commissions, premiums, overtime, etc., that is, the worker's total income from her work for the year, was found. This sum was divided by the number of weeks during which she was actually at work, as indicated by the number of weekly payments made to her. In this way her average weekly income for the time she was at work in the establishment under consideration was ascertained. The commission has made it a rule to follow the written record, and has attempted to present the pay-roll figures as found, without omissions or additions due to interpretations of its own. Obviously a report of the individual employee in a single establishment may not represent the whole history of her employment during the year, as she may have had employment in other stores part of the time. Since the study of the commission was confined to twenty-six stores, the data were not at hand to complete such records. It should, therefore, be borne in mind that the figures in this report tell the story of the girl's employment and unemployment throughout the year in one establishment only, and that the discussion of the amount of other employment may be found in the supplemental report on unemployment made by the Federal Bureau of Labor Statistics referred to on pages 92-93. On account of the difference in the character of the work, it was found advisable to give separate treatment to five-and-ten cent stores, and in both the ordinary stores and the five-and-ten cent stores to separate "regulars" and "extras."

ANALYSIS OF THE WAGE SITUATION.

The total number of wage records of retail store employees available for tabulation and statistical analysis is 9,465. This number includes the women employees in "department" stores, smaller retail stores, and in five-and-ten cent stores, and at the same time covers terms of employment varying in length and character. It seemed advisable to make the groups under consideration as nearly homogeneous as possible, and for this purpose the records were placed in four mutually exclusive groups.

It is obvious that the conditions of work and requirements in the way of salesmanship, as well as the character of the goods sold, in the five-and-ten cent stores differ conspicuously from the same factors in other retail stores. Consequently, the first division which was made was that between the employees in the two kinds of stores. It also became evident during the course of the investigation that regular all-the-year-round employees in the stores make up, on the whole, a totally different group of workers from the additional force employed before Christmas and Easter and in the other busy times,— a body of employees who are known as *extras*. Injustice would be shown to both groups of workers if they were assumed to belong to one group and were described as such. For example, in discussing the number of weeks of unemployment during the year the *extras* in the group, who have employment for only a short period, would affect the showing of the *regulars*, and it would appear that all retail store employees are subject to a moderate degree of unemployment, rather than set forth the fact that the period of unemployment has a different significance for different groups of employees.

In consideration of these facts the following classifications¹ have been made, and the groups are treated in the tables in the order specified:—

Regulars (Tables I. to X.),	6,449
Extras (Tables XI. to XV.),	2,359
Regulars (five-and-ten cent stores) (Tables XVI. to XXIII.), .	418
Extras (five-and-ten cent stores) (Tables XXIV. to XXVI.), .	239
<hr/>	
Total,	9,465

Regulars.

Tables I. (a) and (b) show in the numbers and percentages the classification of retail store employees according to wages received. Briefly stated, the significant facts concerning the wages of the total number of women under consideration in these tables are: one-third earned less than \$6 a week during

¹ In case a girl worked both as a *regular* and as an *extra*, she was classified according to the group in which she remained for the longer period. The slight inaccuracies arising from this classification tend to cancel one another.

the year, one-third earned between \$6 and \$8, and one-third earned \$8 or more. Almost equally significant are the striking differences among the wages paid in different occupations. For example, an important percentage of the workroom employees earned more than \$12 a week, while none of the stock girls averaged as much as \$11 a week, none of the counter cashiers and examiners averaged as much as \$10 a week, and none of the messengers and bundlers averaged as much as \$6 a week.

At the other end of the wage scale corresponding differences are apparent, indicating the extreme variation in the wages customarily paid to retail store employees for the various kinds of services performed. One-third of the messengers and bundlers earned less than \$3 a week, and 83.3 per cent. earned less than \$4 a week, while only .7 per cent. of the alteration workroom employees averaged less than \$4.

Since Table I. represents average weekly earnings for only those weeks during which the employees were actually at work, a true picture of the earnings of women in retail stores must include the facts about the total income from the work in the store during the year, including the period when in many instances the girls were out of work. In Table II. the information concerning this aspect of the situation is presented. When it is remembered that the group of women employees under consideration are *regulars*, not *extras* whose term of employment would very naturally be short, the fact that by far the largest single number of workers, 1,384, or 21.5 per cent., earned less than \$100 during the year causes the general tenor of wages paid to appear in a much more serious light. The wages from the store may have been supplemental in various ways, but it would require a substantial supplement, indicating an occupation which could hardly afford to let its workers spend a part of their time and energy in retail stores, which would bring the majority of the sums noted in this table up to those representing the normal conception of "a living wage."

In Table III. are shown the number and percentage of workers who are scheduled to be paid at the various rates

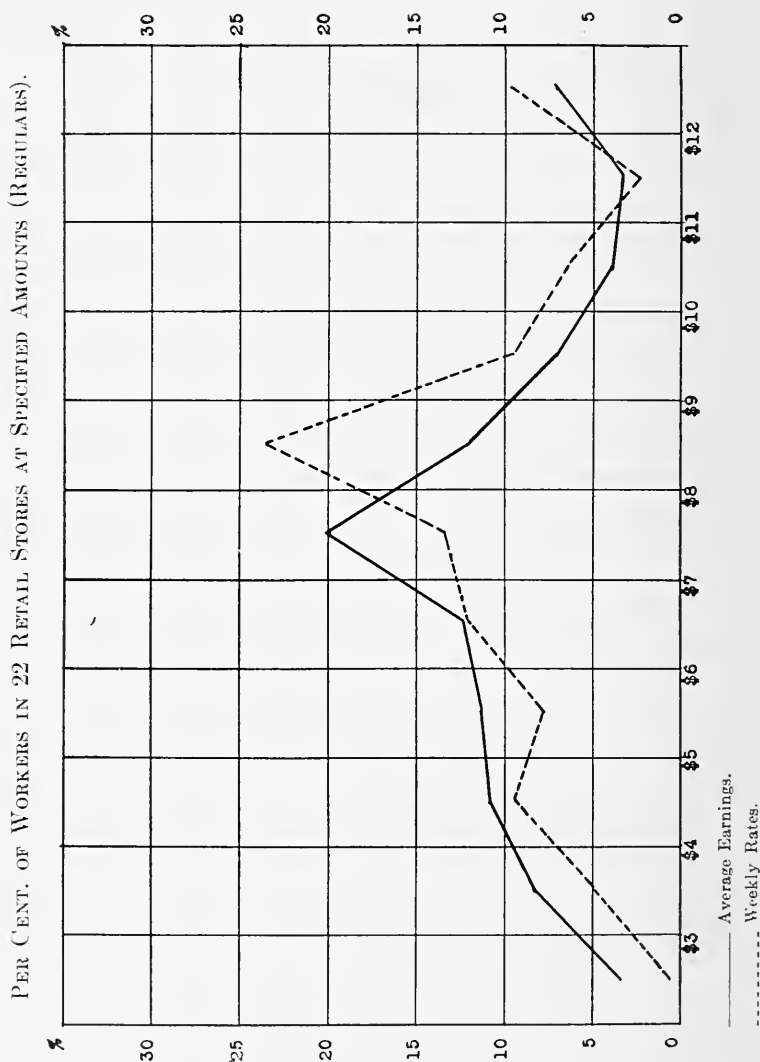
specified. It is a well-known fact that on account of illness, lateness and other causes which bring about short time and days out of work, the amounts received by mercantile as well as industrial workers in their pay envelopes at the end of the week often fall more or less short of the scheduled rates. Table III. shows in numerical form, as Diagram I. shows in graphic form, the dollar groups in which the rates of pay fall, and, when compared with Table I., affords the contrast which is displayed in the diagram. If each worker were employed full time at the rate for which she is scheduled, the earning and rate lines of the diagram would be coincident. Unpaid absences and fines reduce the number actually receiving the given amount below the number scheduled to receive it, as just stated, and so increase the numbers in the preceding dollar groups. The earning line therefore starts above the rate line at less than \$3, indicating that although comparatively few workers are scheduled at the lower amounts, many actually receive them. It is not until a point just below \$8 is reached that the rate line crosses the earning line, showing that many of the workers who are scheduled to receive the higher wages are pushed out of these groups into the lower dollar groups. The course of the earning line is further complicated by the fact that some of the employees receive additional amounts in the form of premiums, overtime, prize and supper money, and especially commissions (not on the schedule of rates), all of which affect the earning curve irregularly.

Over one-half of the workers under consideration in this table are scheduled to earn more than \$8 a week, yet, as has been shown, only one-third actually receive more than \$8 a week. The workers fall into lower earning groups than their scheduled rates of pay would indicate, and the result is shown by the fact that only 22.6 per cent. were scheduled to receive less than \$6, but as a matter of fact fully one-third of the workers under consideration earned on the average less than \$6 a week during the year.

Throughout the study of the wage material presented in these tables the amount of irregularity and variation among the various items is a matter which merits consideration,

especially in a case in which the presence of competition is so frequently cited as a compelling factor in determining wages. Table IV., for example, shows to how great an

DIAGRAM I.



extent different establishments vary in the scale of wages paid to their employees. Establishment No. 15 pays nearly one-fourth of its workers more than \$12 a week, and pays

no one less than \$3 a week, while establishment No. 4 pays 12.2 per cent. of its employees less than \$3 a week. Establishment No. 16 pays more than one-half of its workers less than \$5 a week, while in each of four other stores less than 5 per cent. of the workers are paid less than \$5 a week.

Many other comparisons which it is possible to make from the material presented in this table give additional support to one conclusion, namely, that the pressure of wage competition cannot be cited as the factor which prevents raising of wages in a given store. It is shown by such facts as these that stores in the same locality can thrive side by side, one paying a far higher wage than the other, and that as time goes on neither may find it necessary, though either may find it possible, to modify the wage scale. Moreover, as is shown in detail elsewhere in this report, it is, as a rule, the store paying the highest wages which finds that the cost of selling forms the lowest percentage of its sales; and conversely, it is the store which pays the lowest wages which, as a rule, finds that its selling cost is a comparatively heavy item in its expenses. The character and value of the goods sold without doubt are a factor in establishing these relations.

Similarly, Table V. shows the wide differences between stores with regard to rates of wages, and also demonstrates the existence of the gap between the rates of pay and the amounts which the girls' pay envelopes actually contain.

The fluctuation of employment among the workers is shown in Tables VI. and VII. It is hardly possible to assume, when names appear on the pay rolls and disappear from them again without explanation, that the absences indicated may be termed "unemployment," for the workers may have taken up other employment of which no record has been left. The irregularity of employment is here necessarily discussed with reference only to the stores included in the study. The working force in retail stores is commonly considered to be one with unusually regular employment, at least in comparison with certain manufacturing industries in this State, yet only 19.7 per cent. of the *regulars* worked for the full year; that is, absences other

than vacations with pay were indicated for more than four-fifths of the girls. The different occupations show a wide variation in the amount of work which they afford. The two extremes are the millinery workroom employees and the office employees; in the former the work is exceedingly unsteady, and only 3.6 per cent. worked all through the year, while 39.3 per cent. of the office force were on the pay roll for fifty-two weeks.

Diagram III. (page 126) shows the percentages of all the workers, both *regular* and *extra*, who were employed in each of the fifty-two weeks of the year. The curve for the *regular* workers is comparatively smooth, showing that their employment throughout the year was fairly steady, while the curve for the *extras* is markedly uneven. Nevertheless, the points of greatest and of least employment closely correspond for the two groups. In the latter part of the summer months, which is the popular vacation period, both curves reach their lowest point. In the fifteenth and sixteenth weeks, indicating the spring shopping season, the working force is large; and just before Christmas it reaches the largest dimensions of the year. The jump in the curve for *extras* in the December weeks indicates the great extent to which the usual working force is supplemented at this time.

The high point for *extras* at the fourth week in January may be explained by the fact that one of the largest stores held an important sale at this time. The necessary additions to the working force caused the abrupt rise in the curve.

The diagram shows to how great an extent the two parts of the working force differ in their periods of employment. Never less than 55 nor more than 75 per cent. of the *regulars* were employed at any given time in the year. Employment for *extras* has a wider range (10 to 65 per cent.), but fluctuates around a lower figure (20 per cent.). A better distribution of the force, by which more steady employment might be assured, even though a smaller number of workers were employed, would prove a significant experiment for this industry.

Table VII. demonstrates the variety of conditions existing among the different firms. The proportion of the employees

who worked the entire fifty-two weeks varies from none at all in No. 20 to 71.4 per cent. in establishment No. 22. The latter figure is unusually high because No. 22 is a small store, but larger stores show variations from 4, 6 and 8 to approximately 30 per cent. of employees who did not miss a week in the course of the year.

Tables VIII. (a) and (b) show the ages of women employees in connection with their weekly earnings. Over one-sixth (17.2 per cent.) are under eighteen years of age, and over one-half (56.4 per cent.) are between the ages of eighteen and thirty. The earnings of the youngest girls are extremely low, but with the higher age groups comes a steady increase in wages, and the table shows only one woman of more than twenty-five years of age among the 259 who earned less than \$4 a week. The women in the two highest wage groups are all twenty-one years of age or older.

In Table IX. the classification "living at home" indicates girls actually living in their own homes or living with relatives where more comfort and protection is available than if boarding or rooming. All the girls who earned less than \$3 lived at home. A different situation prevailed among the girls who earned the most money; about one-fourth (26.9 per cent.) of those earning over \$12 were found to be living away from home.

Table X. is an analysis of years of experience in retail store work, as stated by the workers themselves, in relation to the amounts which the pay rolls showed them to be earning. The value of added experience is clearly demonstrated. Only two of the women with less than two years' experience earned as much as \$10 a week, but 90 of the 312 who had fifteen years' experience were earning \$12 and over. Between these two extremes the tendency is toward a steady increase in wages accompanying each year's experience.

Extras.

The following five tables (XI. to XV.) present the wage situation concerning the body of workers previously described as "extras," or that body of irregular workers which supplements the regular force during the holiday seasons and

special sales. The *extras* may be classed roughly in three groups (Table XI. (a)): one-third earned less than \$3 a week, one-third earned \$3 but less than \$5, and one-third earned \$5 or more.

The majority of the *extras* (1,861 out of 2,359) are saleswomen, for it is naturally that part of the force which feels most quickly the pressure of a heavy shopping season. The occupations less immediately connected with the sale of goods are also supplemented in busy periods, but to a smaller extent.

Table XII., showing the weekly earnings of the *extras* by separate establishments, shows at the same time the surprisingly low amounts which wages for this kind of labor may reach. The wages vary according to the girl's working schedule. One group of *extras* is made up of those who work all day during only a part of the week; a second group is made up of those who report for work every day or on certain days, but work for short hours; and a third group is known as the "Christmas extras." The date at which the last-named group begins its work is not uniform among the stores. In one store those who come in late in October are classed as Christmas *extras*, while in another store the Christmas *extras* do not appear until two weeks before December 25. On this account the comparison of establishments cannot be made strictly, except in order to bring out the upper limits of earnings which are possible for girls in the *extra* class.

The first two stores on the list have a large number of *extras* who work during special sales two or three days a week, or come in for Mondays and Saturdays during the rush seasons; consequently, they show a smaller proportion earning over \$6 than No. 3, where the *extras* are employed by the week, and few of the one-or-two-day-a-week type are needed. The smaller stores in the outlying districts have *extras* who come in for a part of Saturday, for which they receive \$1 or \$1.50, or more if the stores are open for an evening during the week, when *extras* are usually called in. Establishments Nos. 17, 18 and 19 are examples of this type, and their wages are therefore conspicuously low.

Table XIII., showing the annual earnings of *extras* by occupations, is one of the most important tables in indicating the actual situation of this group of workers, and should be used in connection with the preceding table to give a fair picture of the real significance of the weekly earnings. Over one-third (36.9 per cent.) of the saleswomen received a total of less than \$25 for the entire year; about one-third (33.1 per cent.) received between \$25 and \$50 for the year; and 99.5 per cent. of the total number received less than \$250. In the other occupations the sums earned annually are still lower. The totals show that 73.4 per cent. of all employed earned less than \$50, and 90.8 per cent. earned less than \$100.

Tables XIV. and XV. show another phase of the situation, — the fluctuation of employment among the *extras*. Not even one-half worked two months, and only .1 per cent. had employment stretching over the entire fifty-two weeks. It should be remembered that each week during which there was employment has been counted as one week, even though there was actual employment for but one day. Therefore, one employed the entire fifty-two weeks may have had but fifty-two days during which she was earning.

It is thoroughly recognized that the figures presented cannot give a comprehensive idea of the income of the *extra* employees from all sources, but they do indicate the nature of the system of *extras*, and, from the relative numbers as compared with the *regular* workers, the importance of the casual employees in retail stores.

Five-and-Ten Cent Stores.

Tables XVI. to XXVI., inclusive, are a study of the women in five-and-ten cent stores. This group of stores is treated separately because not fairly comparable with the employees in the retail stores of the department store type where a wide range of goods is handled. The nature of the goods offered for sale makes them almost self-salable, and the necessity of training in salesmanship is reduced to a minimum. The selling is comparable to the work performed by the counter cashiers and examiners in the department

stores, and a comparison of earnings tends to show that the payment for the services is much the same.

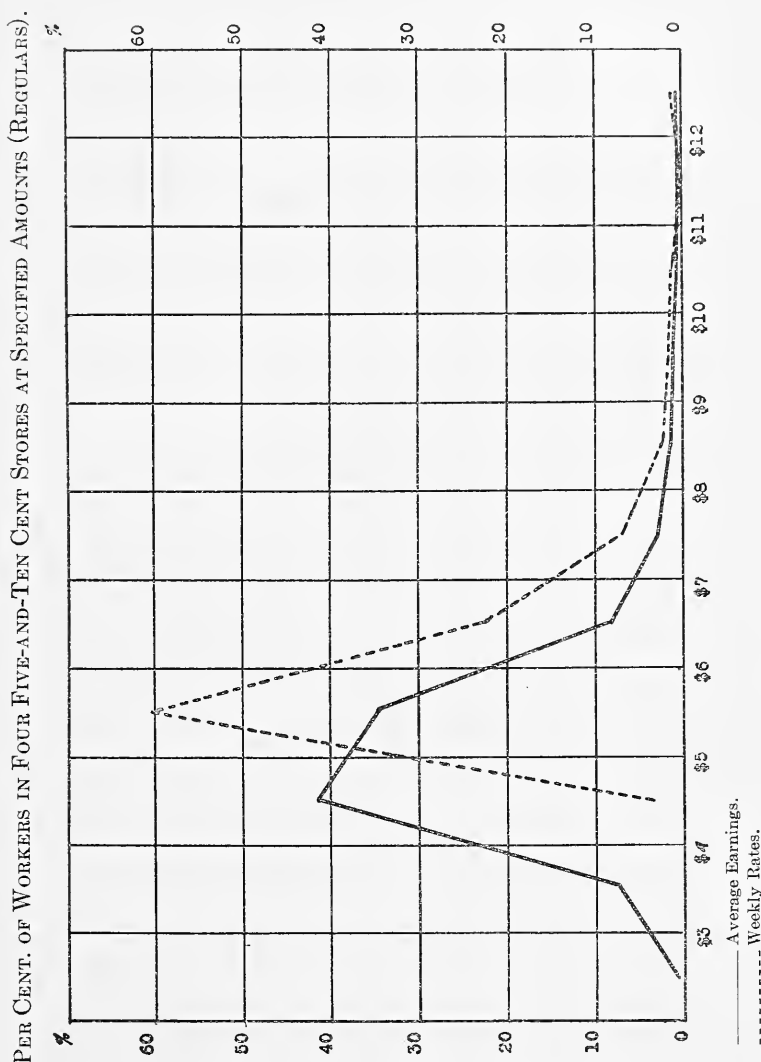
Tables XVI. (a) and (b) show the average weekly earnings according to occupations. A very large per cent. (93.8) of the women employed are saleswomen, and of these over half (53.1 per cent.) received less than \$5 a week and 95.9 per cent. received less than \$7. Among the other occupations the office employees are the best paid; 16.7 per cent. received over \$12.

Table XVII. shows weekly earnings by establishments, and makes possible a comparison in a group of stores in which the nature of the goods sold is peculiarly uniform. Tables XVIII. and XIX. show the rates which the employees are scheduled to receive. Diagram II. compares the numbers at scheduled rates with the numbers who received specified earnings. No one is scheduled to receive under \$4, but an appreciable per cent. are actually receiving under \$3. From the \$4 to \$5 group the rate line makes a direct ascent to its apex, \$5 to \$6. Though a small per cent. of the workers are actually on a \$4 to \$5 rate, the earning line makes apparent that a large per cent. (over 40) are forced back into this group from the higher groups. From this point the earning line falls far below the rate line, and while over 60 per cent. of the workers are scheduled at a rate of from \$5 to \$6, only about 35 per cent. actually receive this amount, and the per cent. earning a given wage continues to be less except in the \$12 and over group, where the 10 per cent. December increase customary in one of the largest stores affects the earning line.

The fluctuation of employment among regular workers in five-and-ten cent stores is much more marked than among regular workers in the large group of retail stores. Table XX. shows that only 2.6 per cent. of the five-and-ten cent store employees remained with one store for twelve full months, as against a corresponding percentage of 19.7 for other retail stores. The explanation of the insecurity of five-and-ten cent store work lies in the fact that it is unskilled and requires little training, and attracts a group of young and inexperienced workers who graduate into better-

paid work, leave the working field altogether, or, if unable to do either, pass from one store and one industry to another in search of change and more skilled employment. (See also the discussion on page 110 and Diagram III.)

DIAGRAM II.



Again, in Tables XXI. (a) and (b), appears the temporary character of work of this kind. More than one-half of the *regulars* in five-and-ten cent stores are less than twenty-one

years old. A slight tendency of wage to increase with age can be observed, but it is far less marked than with the workers in the former group of retail stores. Naturally, a larger proportion of these girls live at home (Table XXII.); they are younger and less experienced, and their earnings are smaller. Thirteen and six-tenths per cent. of the former group live away from home, but only 7.9 per cent. of the five-and-ten cent store girls are living independently. The fact that all of those who live away from home earned less than \$7 a week is sufficiently indicative of the problems which they must meet.

In the table showing years of experience the character of the work is again reflected. Only one-fifth (20.2 per cent.) of the girls in Table XXIII. have had five or more years' experience, while 53.9 per cent. of the *regulars* in general retail stores had worked five years or longer. To the girl in the five-and-ten cent store who has worked successfully two or three years a totally different situation is presented from that which faces the girl in the department store; the latter can continue to rise in her occupation and earning capacity for several years, but to the former the alternatives are changing her occupation or failing to rise in her vocation.

The situation for the *extras* in five-and-ten cent stores corresponds to that for *extras* in other stores, with the markedly lower level of wages which was indicated in the comparison of the *regulars*. The *extras* are all saleswomen (Table XXIV.), and they rarely earn more than \$2 a week. In the course of the year (Table XXV.) the *extras* seldom receive more than \$75, and the majority earned less than \$25. Their work is exceedingly brief, and less than one-fifth (18.4 per cent., see Table XXVI.) worked for more than six months, during which time they may have worked only one or two days in the week.

Summary of Analysis.

General statements concerning the wage situation for women in retail stores must be qualified by two considerations: first, there exist different varieties of stores requiring different degrees of selling efficiency on account of the nature

and price of the articles sold; second, within a given store may be found two groups of workers, *extras* and *regulars*, whose work differs in duration.

In the type of retail store which handles a large variety of goods of varying prices one-third of the regular workers received less than \$6 a week, one-third received between \$6 and \$8 and one-third received \$8 or more. Their employment is somewhat irregular, and only slightly more than one-half of them worked steadily for ten months in the year. The work is not confined to young women, for women of forty-five and over are found earning higher wages than the majority of the younger girls. The majority of the women employees live at home, particularly those whose earnings are small. Similarly, years of experience in the trade appear as an advantage in enlarging earning capacity.

Extras in the same stores are more poorly paid, for five-sixths of them earn less than \$6 a week, and their work is more irregular.

The women employed in five-and-ten cent stores, both *regulars* and *extras*, earn less than the corresponding groups in other stores, tend to change their employment more frequently, and find added experience and maturity of little value in increasing their earning capacity in selling goods.

TABLE I. (a). — *Average Weekly Earnings: by Occupations (Regulars).*

NUMBER AND PER CENT. OF WORKERS EARNING —																									
UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND UNDER \$10.		\$10 AND UNDER \$11.		\$11 AND UNDER \$12.		\$12 AND OVER.		TOTAL.			
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.						
OCCUPATIONS.	Saleswomen.	6	.2	44	1.3	142	4.1	467	13.6	520	15.1	798	23.3	486	14.2	332	9.7	181	5.3	149	4.3	305	8.9	3,430	100
	Office employees,	5	.5	43	4.4	77	7.9	119	12.2	160	16.4	270	27.8	117	12.0	56	5.8	46	4.7	23	2.4	57	5.9	973	100
	Counter cashiers and examiners,	42	7.2	156	26.9	290	49.9	53	9.1	15	2.6	19	3.3	3	.5	3	.5	—	—	—	—	—	—	581	100
	Messengers and bundlers,	140	33.4	209	49.9	56	13.4	14	3.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	419	100
	Alteration workroom employees,	—	—	2	.7	7	2.4	5	1.7	27	9.4	52	18.1	94	32.6	33	11.5	9	3.1	13	4.5	46	16.0	288	100
	Millinery workroom employees,	16	9.6	8	4.8	18	10.7	11	6.6	17	10.2	14	8.4	22	13.1	13	7.8	8	4.8	7	4.2	33	19.8	167	100
	Other workroom employees,	—	—	1	.9	2	1.7	4	3.4	9	7.7	44	37.6	29	24.8	10	8.5	5	4.3	8	6.8	5	4.3	117	100
	Stock girls,	—	—	1	1.8	24	43.6	17	30.9	4	7.3	4	7.3	1	1.8	3	5.5	1	1.8	—	—	—	—	55	100
	Miscellaneous,	9	2.1	66	15.8	87	20.8	45	10.7	50	11.9	90	21.5	29	6.9	13	3.1	5	1.2	13	3.1	12	2.9	419	100
	Total,	218	3.4	530	8.2	703	10.9	735	11.4	802	12.4	1,291	20.0	781	12.1	463	7.2	255	4.0	213	3.3	458	7.1	6,449	100

TABLE I. (b). — Average Weekly Earnings: by Occupations (Cumulative) (Regulars).

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —										
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	\$12 and over.
Saleswomen, . . . . .	.2	1.5	5.6	19.2	34.4	57.6	71.8	81.5	86.8	91.1	8.9
Office employees, . . . . .	.5	4.9	12.8	25.1	41.5	69.3	81.3	87.1	91.8	94.1	5.9
Counter cashiers and examiners,	7.2	34.1	84.0	93.1	95.7	99.0	99.5	100.0	100.0	100.0	—
Messengers and bundlers,	33.4	83.3	96.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	—
Alteration workroom employees,	—	.7	3.1	4.9	14.2	32.3	64.9	76.4	79.5	84.0	16.0
Millinery workroom employees,	9.6	14.4	25.1	31.7	41.9	50.3	63.5	71.3	76.0	80.2	19.8
Other workroom employees,	—	.9	2.6	6.0	13.7	51.3	76.1	84.6	88.9	95.7	4.3
Stock girls,	—	1.8	45.5	76.4	83.6	90.9	92.7	98.2	100.0	100.0	—
Miscellaneous,	2.1	17.9	38.7	49.4	61.3	82.8	89.7	92.8	94.0	97.1	2.9
Total,	3.4	11.6	22.5	33.9	45.3	65.4	78.5	85.6	89.6	92.9	7.1

TABLE II. — *Annual Earnings: by Occupations (Regulars).*

OCCUPATIONS.	NUMBER OF WORKERS WITH ANNUAL EARNINGS OF —													Total.
	Under \$100.	\$100 and under \$150.	\$150 and under \$200.	\$200 and under \$250.	\$250 and under \$300.	\$300 and under \$350.	\$350 and under \$400.	\$400 and under \$450.	\$450 and under \$500.	\$500 and under \$550.	\$550 and under \$600.	\$600 and under \$650.	\$650 and over.	
Saleswomen,	538	240	216	234	290	335	398	450	226	163	98	74	168	3,430
Office employees,	147	52	52	61	82	109	135	156	59	45	16	19	40	973
Counter cashiers and examiners,	242	68	103	89	47	12	8	10	1	1	—	—	—	581
Messengers and bundlers,	243	67	68	30	10	1	—	—	—	—	—	—	—	419
Alteration workroom employees,	37	13	15	16	15	33	47	39	18	9	12	7	27	288
Millinery workroom employees,	54	21	13	11	3	9	9	13	9	5	4	3	13	167
Other workroom employees,	14	11	4	3	5	2	21	34	8	5	2	5	3	117
Stock girls,	22	4	5	7	7	3	2	2	1	2	—	—	—	55
Miscellaneous,	87	45	54	45	30	41	51	36	7	5	5	6	7	419
Total,	1,384	521	530	496	489	545	671	740	329	235	137	114	258	6,449

TABLE III. — *Weekly Rates: by Occupations (Regulars).*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —																									
	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND UNDER \$10.		\$10 AND UNDER \$11.		\$11 AND UNDER \$12.		\$12 AND OVER.		TOTAL.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.		
Saleswomen,	—	—	10	.3	61	1.8	118	3.4	526	15.3	651	19.0	939	27.4	357	10.4	263	7.7	99	2.9	456	11.8	3,430	100		
Office employees,	—	—	10	1.0	58	6.0	61	6.3	120	12.3	141	14.5	313	32.2	94	9.7	70	7.2	25	2.5	81	8.3	973	100		
Counter cashiers and examiners,	28	4.8	21	3.6	256	44.1	200	34.4	32	5.5	5	.9	35	6.0	2	.3	2	.4	—	—	—	—	581	100		
Messengers and bundlers,	—	—	—	—	232	55.4	145	34.6	28	6.7	9	2.1	4	1.0	1	.2	—	—	—	—	—	—	419	100		
Alteration workroom employees,	—	—	—	—	1	.4	3	1.1	6	2.3	2	.8	14	5.3	46	17.6	83	31.7	42	16.0	6	2.3	59	22.5	262	100
Millinery workroom employees,	5	3.0	9	5.4	9	5.4	15	9.0	15	9.0	14	8.4	17	10.2	20	11.9	14	8.4	7	4.2	42	25.1	167	100		
Other workroom employees,	—	—	1	.9	—	—	—	—	3	2.6	7	6.1	59	51.7	19	16.7	6	5.3	5	4.4	14	12.3	114	100		
Stock girls,	—	—	1	1.8	5	9.1	20	36.4	17	30.9	2	3.7	6	10.9	1	1.8	2	3.6	—	—	1	1.8	55	100		
Miscellaneous,	1	.3	19	4.9	64	16.4	58	14.9	49	12.6	20	5.1	106	27.2	29	7.5	14	3.6	3	.8	26	6.7	389	100		
Total,	34	.5	304	4.8	601	9.4	506	7.9	773	12.1	858	13.4	1,522	23.8	605	9.5	413	6.5	145	2.3	629	9.8	6,390	100		

NOTE. — Of the total 6,449 persons whose records were studied, weekly rates were not available for 59 persons.

TABLE IV. — *Average Weekly Earnings: by Establishments (Cumulative) (Regulars).*

ESTABLISHMENTS.		PER CENT. OF WORKERS EARNING —										
		Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12. and over.
No. 1.	.	4	7.2	22.8	26.5	31.7	57.6	73.8	82.9	87.4	91.3	8.7
No. 2.	.	8.7	22.3	29.9	36.5	47.3	65.6	76.8	83.1	88.2	92.4	7.6
No. 3.	.	7.1	22.9	32.5	41.5	54.2	73.8	83.4	90.3	93.1	95.7	4.3
No. 4.	.	12.2	21.1	26.9	50.3	62.2	71.7	78.9	84.7	88.6	91.7	8.3
No. 5.	.	—	.3	1.7	38.1	66.3	81.0	88.1	92.9	94.9	96.6	3.4
No. 6.	.	1.2	9.4	19.6	45.9	66.7	82.0	89.0	94.1	96.9	97.3	2.7
No. 7.	.	1.0	1.5	4.1	16.4	41.0	57.4	70.3	77.9	83.1	88.2	11.8
No. 8.	.	—	.7	8.3	45.5	72.4	86.9	91.0	93.8	95.9	97.2	2.8
No. 9.	.	1.6	5.5	10.9	32.0	55.5	76.6	86.7	91.4	93.8	96.1	3.9
No. 10.	.	—	7.0	26.6	32.8	61.7	82.8	89.8	91.4	93.8	96.1	7.4
No. 11.	.	1.7	3.3	9.9	42.1	62.8	76.9	81.8	88.4	90.9	92.6	2.9
No. 12.	.	—	1.9	9.5	22.9	53.3	73.3	89.5	95.2	97.1	97.1	5.5
No. 13.	.	—	1.1	13.2	13.2	37.4	53.8	69.2	81.3	92.3	94.5	8.2
No. 14.	.	—	2.4	18.8	36.5	51.8	64.7	72.9	80.0	83.5	91.8	23.1
No. 15.	.	—	1.3	7.7	16.7	23.1	34.6	61.5	67.9	71.8	76.9	6.2
No. 16.	.	—	21.9	53.1	73.4	82.8	89.1	90.6	93.8	93.8	93.8	1.8
No. 17.	.	3.6	14.3	33.9	62.5	80.4	92.9	94.6	98.2	98.2	98.2	4.9
No. 18.	.	—	—	2.4	9.8	26.8	51.2	78.0	88.9	95.1	100.0	—
No. 19.	.	—	—	33.3	55.6	72.2	88.9	100.0	100.0	100.0	100.0	—
No. 20.	.	—	—	25.0	66.7	83.3	100.0	100.0	100.0	100.0	100.0	—
No. 21.	.	—	—	10.0	30.0	60.0	70.0	90.0	90.0	100.0	100.0	—
No. 22.	.	—	—	—	57.1	57.1	57.1	71.4	71.4	100.0	100.0	—
Total.	.	3.4	11.6	22.5	33.9	46.3	66.4	78.5	85.6	89.6	92.9	7.1

TABLE VI. — *Fluctuation of Employment among 6,449 Workers: by Occupations (Regulars).*

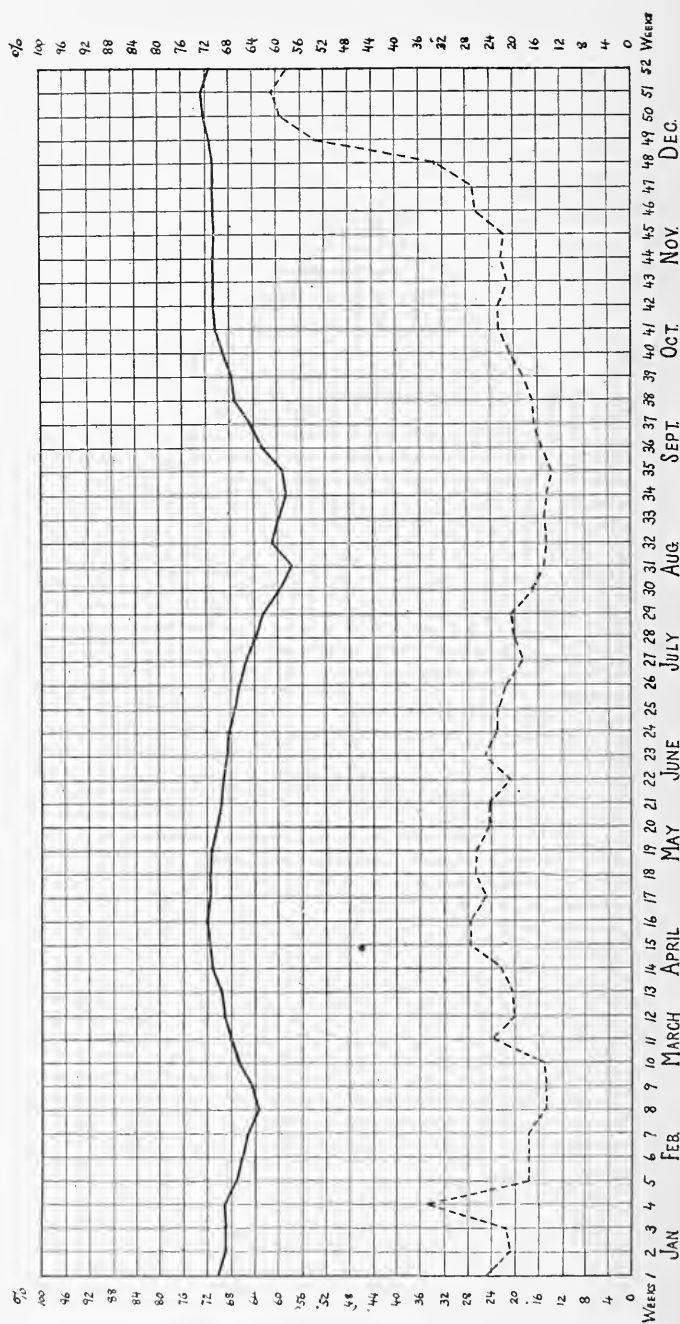
OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS—											
	12	11	10	9	8	7	6	5	4	3	2	1
Saleswomen,	18.0	47.7	57.2	61.8	65.8	69.9	73.4	76.7	81.5	86.5	91.6	100
Office employees,	39.3	62.5	68.1	70.2	73.4	76.5	78.6	81.9	85.0	88.3	92.5	100
Counter cashiers and examiners,	15.3	28.7	36.3	41.8	45.1	53.7	57.3	60.4	68.2	74.4	81.4	100
Messengers and bundlers,	8.1	18.6	25.5	31.7	35.8	43.2	48.9	53.7	62.3	73.0	82.1	100
Alteration workroom employees,	5.9	33.7	57.6	65.6	70.5	74.0	75.7	81.3	83.3	86.8	92.4	100
Millinery workroom employees,	3.6	10.2	26.9	35.9	41.9	49.1	52.1	57.5	65.3	71.3	82.6	100
Other workroom employees,	23.1	60.7	69.2	72.6	73.5	74.4	76.9	77.8	82.1	89.7	94.9	100
Stock girls,	14.5	30.9	40.0	43.6	52.7	54.5	58.2	60.0	67.3	76.4	87.3	100
Miscellaneous,	21.2	42.7	53.0	59.7	64.4	69.2	72.1	75.2	81.9	87.6	92.6	100
Total,	19.7	44.5	53.9	58.7	62.7	67.3	70.6	74.0	79.1	84.4	90.1	100

TABLE VII. — *Fluctuation of Employment among 6,449 Workers: by Establishments (Regulars).*

ESTABLISHMENTS.		PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
		12	11	10	9	8	7	6	5	4	3	2	1
No. 1,	.	30.1	53.0	62.9	67.7	70.5	74.7	77.7	80.3	85.2	88.6	93.4	100
No. 2,	.	8.5	38.6	48.8	54.7	60.7	66.5	70.1	74.0	79.3	85.8	91.4	100
No. 3,	.	21.4	36.8	43.8	48.5	51.9	57.8	62.6	67.5	73.8	81.3	88.2	100
No. 4,	.	19.2	35.6	41.4	45.6	49.2	55.0	57.5	61.7	66.7	74.7	81.4	100
No. 5,	.	3.4	38.1	53.1	58.2	61.9	67.3	69.4	72.4	76.2	84.7	90.8	100
No. 6,	.	18.0	40.4	48.2	51.8	55.7	58.4	63.1	67.4	73.3	80.0	84.3	100
No. 7,	.	15.9	43.1	55.4	59.5	63.1	66.7	70.8	73.8	79.0	82.6	90.3	100
No. 8,	.	4.2	40.7	48.3	52.4	59.3	64.1	69.0	75.2	78.6	82.8	87.6	100
No. 9,	.	26.6	59.4	71.1	75.8	80.5	82.0	85.9	87.5	89.8	94.5	96.9	100
No. 10,	.	3.9	21.1	24.2	26.6	29.7	33.6	35.9	39.1	45.3	54.7	68.8	100
No. 11,	.	4.1	45.5	51.2	54.5	58.7	61.2	62.8	66.9	76.9	81.8	87.9	100
No. 12,	.	6.7	57.1	64.8	65.7	68.6	70.5	73.2	79.0	84.8	84.8	87.6	100
No. 13,	.	29.7	60.4	68.1	73.6	76.9	81.3	81.3	84.6	90.1	95.6	95.6	100
No. 14,	.	27.1	44.7	52.9	64.7	75.3	75.3	76.5	78.8	84.7	85.9	89.4	100
No. 15,	.	7.7	26.9	50.0	56.4	64.1	66.7	66.7	67.9	74.4	82.1	89.7	100
No. 16,	.	10.9	42.2	56.3	59.4	62.5	65.6	68.8	71.9	73.4	81.3	92.2	100
No. 17,	.	32.1	53.8	61.1	65.6	68.8	70.5	73.6	78.9	84.3	86.1	92.2	100
No. 18,	.	34.1	46.3	48.8	48.8	51.2	51.8	53.6	58.9	64.3	66.1	76.8	100
No. 19,	.	16.7	44.4	44.4	44.4	44.4	50.0	55.6	61.1	61.1	66.7	72.9	100
No. 20,	.	20.0	8.3	25.0	33.3	41.7	50.0	55.3	58.3	66.7	83.3	83.3	100
No. 21,	.	71.4	80.0	90.0	90.0	90.0	90.0	90.0	100.0	100.0	100.0	100.0	100
No. 22,	.	71.4	71.4	71.4	71.4	71.4	71.4	85.7	100.0	100.0	100.0	100.0	100
Total,	.	19.7	44.5	53.9	58.7	62.7	67.3	70.6	74.0	79.1	84.4	90.1	100

DIAGRAM III.

CURVES SHOWING PER CENT. OF EMPLOYMENT FOR 6,867 REGULAR WORKERS AND 2,598 EXTRA WORKERS IN RETAIL STORES DURING 52 WEEKS.



———— Regulars, including five-and-ten cent stores.
 - - - - - Extras, including five-and-ten cent stores.

TABLE VIII. (a). — *Average Weekly Earnings: by Age Groups (Regulars).*

AGE.	NUMBER OF WORKERS EARNING —											Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and over.	
14 and less than 16,	34	41	33	2	—	—	—	—	—	—	—	110
16 and less than 18,	16	123	178	56	7	8	3	—	—	—	—	391
18 and less than 21,	2	39	77	121	99	153	42	8	2	—	—	543
21 and less than 25,	1	2	22	98	121	216	113	29	14	8	8	632
25 and less than 30,	—	—	4	43	86	114	92	50	31	23	30	473
30 and less than 35,	—	—	1	14	27	40	61	54	29	15	35	276
35 and less than 40,	—	1	3	10	16	38	38	34	16	16	42	214
40 and less than 45,	—	—	—	3	10	22	24	21	10	12	35	137
45 and less than 50,	—	—	—	1	11	22	18	12	4	4	12	84
50 and less than 55,	—	—	1	3	—	11	4	4	2	3	4	32
55 and less than 60,	—	—	—	—	2	4	3	—	1	2	3	15
60 and over,	—	—	1	—	1	3	3	1	—	2	2	13
Total,	53	206	320	351	380	631	491	213	109	85	171	2,920

NOTE. — Data for age were not available for 3,529 workers.

TABLE VIII. (b). — *Average Weekly Earnings: by Age Groups (Cumulative) (Regulars).*

AGE.	NUMBER OF WORKERS EARNING —										
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	\$12 and over.
14 and less than 16,	34	75	108	110	110	110	110	110	110	110	—
16 and less than 18,	16	139	317	373	380	388	391	391	391	391	—
18 and less than 21,	2	41	118	239	338	491	533	541	543	543	—
21 and less than 25,	1	3	25	123	244	460	573	602	616	624	8
25 and less than 30,	—	—	4	47	133	247	339	389	420	443	30
30 and less than 35,	—	—	1	15	42	82	143	197	226	241	35
35 and less than 40,	—	1	4	14	30	68	106	140	156	172	42
40 and less than 45,	—	—	—	3	13	35	59	80	90	102	35
45 and less than 50,	—	—	—	1	12	34	52	64	68	72	12
50 and less than 55,	—	—	1	4	4	15	19	23	25	28	4
55 and less than 60,	—	—	—	—	2	6	9	9	10	12	3
60 and over,	—	—	1	1	2	5	8	9	9	11	2
Total,	53	259	579	930	1,310	1,941	2,342	2,555	2,664	2,749	171

NOTE. — Data for age were not available for 3,529 workers.

TABLE IX. — *Home Conditions and Average Weekly Earnings (Cumulative) (Regulars).*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —										
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	\$12 and over.
Living at home,	53	253	564	894	1,214	1,779	2,134	2,357	2,460	2,541	155
Living away from home,	—	5	13	38	100	192	280	319	339	366	57
Total,	53	258	577	932	1,314	1,971	2,414	2,676	2,799	2,907	212

NOTE. — Data concerning home conditions were not available for 3,330 workers.

TABLE X. — *Average Weekly Earnings: by Years of Experience (Regulars).*

YEARS OF EXPERIENCE.	NUMBER OF WORKERS EARNING —										Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and over.
Less than 1.	5	27	42	27	12	9	3	1	—	—	—
1 and less than 2.	4	62	102	62	32	27	9	4	—	1	126
2 and less than 3.	—	14	65	63	43	60	18	7	1	1	304
3 and less than 4.	—	6	25	45	53	71	28	16	3	2	273
4 and less than 5.	1	4	11	36	43	87	29	10	4	—	253
5 and less than 6.	—	—	8	19	30	64	39	14	8	6	237
6 and less than 7.	—	—	4	19	22	54	45	18	4	5	191
7 and less than 8.	—	—	—	12	16	35	35	17	6	5	177
8 and less than 9.	—	—	—	5	19	37	22	18	7	8	135
9 and less than 10.	—	—	—	8	10	19	29	15	5	7	121
10 and less than 11.	—	—	—	4	16	25	32	24	6	6	142
11 and less than 12.	—	—	—	3	7	6	8	8	6	8	50
12 and less than 13.	—	—	—	1	7	15	19	16	7	11	83
13 and less than 14.	—	—	1	—	6	2	5	7	4	2	37
14 and less than 15.	—	—	—	—	5	7	9	6	8	10	51
15 and over.	—	—	—	2	11	42	41	54	33	39	312
Total.	10	113	258	306	332	560	371	235	107	99	198
											2,589

NOTE. — Data concerning years of experience were not available for 3,860 workers.

TABLE XI. (a). — *Average Weekly Earnings: by Occupations (Extras).*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —																TOTAL.	
	UNDER \$1.		\$1 AND UNDER \$2.		\$2 AND UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND OVER.					
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.		
Saleswomen,	83	4.5	326	17.5	202	10.9	259	13.9	326	17.5	274	14.7	391	21.0	1,861	100		
Office employees,	4	3.6	16	14.4	16	14.4	15	13.5	18	16.2	22	19.9	20	18.0	111	100		
Counter cashiers and examiners,	6	4.8	10	8.1	18	14.5	73	58.9	16	12.9	1	.8	—	—	124	100		
Messengers and bundlers,	13	9.3	10	7.2	61	43.9	45	32.4	9	6.5	—	—	1	.7	139	100		
Alteration workroom employees,	—	—	2	8.7	2	8.7	5	21.7	2	8.7	5	21.7	7	30.5	23	100		
Millinery workroom employees,	—	—	1	20.0	2	40.0	—	—	2	40.0	—	—	—	—	5	100		
Other workroom employees,	—	—	—	—	—	—	2	33.3	—	—	1	16.7	3	50.0	6	100		
Stock girls,	—	—	—	—	—	—	—	—	1	33.4	1	33.3	1	33.3	3	100		
Miscellaneous,	9	10.4	5	5.8	13	14.9	12	13.8	15	17.2	19	21.8	14	16.1	87	100		
Total,	115	4.9	370	15.7	314	13.3	411	17.4	389	16.5	323	13.7	437	18.5	2,359	100		

TABLE XI. (b). — *Average Weekly Earnings: by Occupations (Cumulative) (Extras).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —						
	Under \$1.	Under \$2.	Under \$3.	Under \$4.	Under \$5.	Under \$6.	\$6 and over.
Saleswomen,	4.5	22.0	32.8	46.7	64.3	79.0	21.0
Office employees,	3.6	18.0	32.4	45.9	62.2	82.0	18.0
Counter cashiers and examiners,	4.8	12.9	27.4	86.3	99.2	100.0	—
Messengers and bundlers,	9.3	16.5	60.4	92.8	99.3	99.3	.7
Alteration workroom employees,	—	8.7	17.4	39.1	47.8	69.5	30.5
Millinery workroom employees,	—	20.0	60.0	60.0	100.0	100.0	—
Other workroom employees,	—	—	—	33.3	33.3	50.0	50.0
Stock girls,	—	—	—	—	33.3	66.7	33.3
Miscellaneous,	10.4	16.1	31.0	44.8	62.1	83.9	16.1
Total,	4.9	20.6	33.9	51.3	67.8	81.5	18.5

TABLE XII. — *Average Weekly Earnings: by Establishments (Cumulative) (Extras).*

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —						
	Under \$1.	Under \$2.	Under \$3.	Under \$4.	Under \$5.	Under \$6.	\$6 and over.
No. 1,	2.1	4.6	14.9	37.7	55.3	76.0	24.0
No. 2, . . . . .	.2	6.3	29.7	52.0	72.8	83.7	16.3
No. 3, . . . . .	.8	4.9	8.9	19.8	33.2	47.0	53.0
No. 4,	3.0	14.6	25.6	45.7	73.2	90.9	9.1
No. 5,	—	9.3	14.0	23.3	53.5	86.0	14.0
No. 6,	2.8	58.7	81.6	92.2	96.6	98.3	1.7
No. 7,	9.5	42.9	49.2	57.1	73.0	87.3	12.7
No. 8,	29.8	80.9	87.2	89.4	95.7	97.9	2.1
No. 9,	5.9	17.6	20.6	35.3	88.2	100.0	—
No. 11,	4.8	33.3	50.0	69.0	81.0	92.9	7.1
No. 12,	—	—	—	—	—	—	100.0
No. 13,	10.5	46.8	62.9	79.0	91.1	96.8	3.2
No. 14,	14.6	56.1	78.0	85.4	95.1	100.0	—
No. 17,	3.1	75.0	93.8	100.0	100.0	100.0	—
No. 18,	—	100.0	100.0	100.0	100.0	100.0	—
No. 19,	62.1	94.8	100.0	100.0	100.0	100.0	—
No. 20,	—	83.3	100.0	100.0	100.0	100.0	—
No. 21,	26.3	78.9	89.5	94.7	100.0	100.0	—
Total,	4.9	20.6	33.9	51.3	67.8	81.5	18.5

NOTE. — Establishments Nos. 10, 15, 16 and 22 do not employ extras.

TABLE XIV. — *Fluctuation of Employment among 2,359 Workers: by Occupations (Electrics).*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											1
	12	11	10	9	8	7	6	5	4	3	2	
Saleswomen, . . . . .	.2	2.4	4.2	7.1	9.9	13.0	15.4	19.6	25.8	33.0	45.3	100
Office employees,	—	2.7	6.3	6.3	8.1	12.6	12.6	12.6	14.4	20.7	29.7	100
Counter cashiers and examiners,	—	—	—	—	—	—	.8	1.6	3.2	9.7	19.4	100
Messengers and bundlers,	—	—	—	—	—	.7	.7	2.9	6.5	10.1	19.4	100
Alteration workroom employees,	—	—	—	—	—	—	—	—	4.3	4.3	26.1	100
Millinery workroom employees,	—	—	—	—	—	—	20.0	40.0	40.0	40.0	40.0	100
Other workroom employees,	—	—	—	—	—	16.7	16.7	16.7	33.3	33.3	66.7	100
Stock girls,	—	—	—	—	—	—	—	—	—	33.3	66.7	100
Miscellaneous,	—	2.4	2.4	3.5	5.9	7.1	9.4	16.5	21.2	31.8	50.6	100
Total, . . . . .	.1	2.1	3.7	6.0	8.4	11.2	13.3	17.0	22.6	29.5	41.8	100

TABLE XV. — *Fluctuation of Employment among 2,359 Workers: by Establishments (Extras).*

ESTABLISHMENTS.		PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											
		12	11	10	9	8	7	6	5	4	3	2	1
No. 1,	.	.1	.5	1.2	2.2	3.6	5.0	6.7	9.1	14.4	20.2	32.0	100
No. 2,	.	.2	2.2	3.6	4.9	7.1	11.2	15.2	21.4	27.2	32.8	34.4	100
No. 3,	.	—	—	—	.4	1.2	2.4	3.6	6.9	13.4	19.8	37.2	100
No. 4,	.	—	—	—	.6	1.8	3.7	4.3	6.1	7.9	12.8	25.0	100
No. 5,	.	—	2.3	2.3	4.7	4.7	7.0	7.0	9.3	14.0	23.3	39.5	100
No. 6,	.	—	.6	.6	7.3	11.2	16.2	19.6	24.6	31.8	42.5	55.9	100
No. 7,	.	—	1.6	3.2	15.9	17.5	20.6	22.2	27.0	28.6	36.5	41.3	100
No. 8,	.	—	14.9	21.3	29.8	34.0	42.6	44.7	46.8	53.2	57.4	74.5	100
No. 9,	.	—	—	5.9	5.9	5.9	11.8	11.8	11.8	11.8	20.6	20.6	100
No. 10,	.	—	2.4	2.4	2.4	4.8	4.8	7.1	7.1	14.3	23.8	28.6	100
No. 11,	.	—	—	—	—	—	—	—	—	—	—	—	100
No. 12,	.	—	9.7	15.3	20.2	29.8	32.3	33.9	37.9	41.9	54.0	66.1	100
No. 13,	.	.8	7.3	7.3	9.8	9.8	14.6	17.1	22.0	34.1	43.9	51.2	100
No. 14,	.	—	9.4	18.8	31.3	40.6	46.9	46.9	53.1	68.8	78.1	84.4	100
No. 15,	.	—	—	—	—	10.0	40.0	40.0	50.0	60.0	70.0	90.0	100
No. 16,	.	—	—	—	—	15.5	20.7	20.7	27.6	32.8	46.6	51.7	100
No. 17,	.	—	—	—	—	33.3	66.7	66.7	66.7	83.3	83.3	83.3	100
No. 18,	.	—	—	—	—	57.9	57.9	57.9	73.7	78.9	84.2	89.5	100
No. 19,	.	—	—	—	—	—	—	—	—	—	—	—	100
No. 20,	.	—	—	—	—	—	—	—	—	—	—	—	100
No. 21,	.	—	—	—	—	—	—	—	—	—	—	—	100
Total,	.	.1	2.1	3.7	6.0	8.4	11.2	13.3	17.0	22.6	29.5	41.8	100

NOTE. — Establishments Nos. 10, 15, 16 and 22 do not employ extras.

TABLE XVI. (b). — *Average Weekly Earnings: by Occupations (Cumulative) (Five-and-Ten Cent Stores, Regulars).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —										
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	\$12 and over.
Saleswomen,	.8	8.9	53.1	89.0	95.9	99.0	99.5	99.7	99.7	100.0	—
Office employees,	—	—	—	8.3	41.7	41.7	50.0	66.7	83.3	83.3	16.7
Miscellaneous,	—	—	—	21.4	50.0	57.1	85.7	100.0	100.0	100.0	—
Total,	.7	8.4	49.8	84.4	92.8	95.9	97.6	98.8	99.3	99.5	.5

TABLE XVII. — *Average Weekly Earnings: by Establishments (Cumulative) (Five-and-Ten Cent Stores, Regulars).*

		PER CENT. OF WORKERS EARNING —										
		ESTABLISHMENTS.										
		Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	\$12 and over.
No. 23,	.	—	26.5	37.0	76.7	88.4	93.2	96.3	98.4	98.9	99.5	.5
No. 24,	.	—	5.6	48.1	83.3	94.4	96.3	98.1	100.0	100.0	100.0	—
No. 25,	.	—	11.0	56.2	93.2	95.9	98.6	98.6	98.6	100.0	100.0	—
No. 26,	.	3.0	18.8	70.3	94.1	98.0	99.0	99.0	99.0	99.0	99.0	1.0
Total,	.	.7	8.4	49.8	84.4	92.8	95.9	97.6	98.8	99.3	99.5	.5

TABLE XX. — *Fluctuation of Employment among 418 Workers: by Occupations (Five-and-Ten Cent Stores, Regulars).*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											
	12	11	10	9	8	7	6	5	4	3	2	1
Saleswomen,	1.8	9.9	14.3	16.3	20.2	25.0	28.6	34.9	42.3	53.6	69.6	100
Office employees,	16.7	66.7	66.7	83.3	83.3	91.7	91.7	91.7	91.7	91.7	100.0	100
Miscellaneous,	14.3	71.4	71.4	71.4	78.6	78.6	85.7	85.7	100.0	100.0	100.0	100
Total,	2.6	13.6	17.7	20.1	23.9	28.7	32.3	38.3	45.7	56.2	71.5	100

TABLE XXI. (a). — *Average Weekly Earnings: by Age Groups (Five-and-Ten Cent Stores, Regulars).*

AGE.	NUMBER OF WORKERS EARNING —										Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and over.
14 and less than 16,	—	—	—	—	—	—	—	—	—	—	—
16 and less than 18,	—	—	8	9	—	—	—	—	—	—	17
18 and less than 21,	—	—	11	24	5	1	—	—	—	—	41
21 and less than 25,	—	—	5	13	12	—	2	3	1	1	37
25 and less than 30,	—	—	1	4	5	1	2	1	1	—	16
30 and less than 35,	—	—	1	—	—	—	—	—	—	—	1
35 and less than 40,	—	—	—	—	—	1	—	—	—	—	1
40 and less than 45,	—	—	—	—	—	—	—	—	—	—	—
45 and less than 50,	—	—	—	—	—	1	—	—	—	—	1
50 and less than 55,	—	—	—	—	—	—	—	—	—	—	—
55 and less than 60,	—	—	—	—	—	—	—	—	—	—	—
60 and over,	—	—	—	—	—	—	—	—	—	—	—
Total,	—	—	25	50	22	4	4	4	2	1	1
											114

NOTE. — Data for age were not available for 304 workers.

TABLE XXI. (b). — *Average Weekly Earnings: by Age Groups (Cumulative) (Five-and-Ten Cent Stores, Regulars).*

	Age.	NUMBER OF WORKERS EARNING —										Under \$12 and over.
		Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	
14 and less than 16,	.	—	—	—	—	—	—	—	—	—	—	—
16 and less than 18,	.	—	—	8	17	17	17	17	17	17	17	—
18 and less than 21,	.	—	—	11	35	40	41	41	41	41	41	—
21 and less than 25,	.	—	—	5	18	30	30	32	35	36	37	—
25 and less than 30,	.	—	—	1	5	10	11	13	14	15	15	1
30 and less than 35,	.	—	—	1	1	1	1	1	1	1	1	—
35 and less than 40,	.	—	—	—	—	—	1	1	1	1	1	—
40 and less than 45,	.	—	—	—	—	—	—	—	—	—	—	—
45 and less than 50,	.	—	—	—	—	—	1	1	1	1	1	—
50 and less than 55,	.	—	—	—	—	—	—	—	—	—	—	—
55 and less than 60,	.	—	—	—	—	—	—	—	—	—	—	—
60 and over,	.	—	—	—	—	—	—	—	—	—	—	—
Total,	.	—	—	26	76	98	102	106	110	112	113	1

NOTE. — Data for age were not available for 304 workers.

TABLE XXII. — *Home Conditions and Average Weekly Earnings (Cumulative) (Five-and-Ten Cent Stores, Regulars).*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —										
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	\$12 and over.
Living at home,	—	—	20	68	89	93	97	101	103	104	1
Living away from home,	—	—	6	8	9	9	9	9	9	9	—
Total,	—	—	26	76	98	102	106	110	112	113	-1

NOTE. — Data concerning home conditions were not available for 304 workers.

TABLE XXIII. — *Average Weekly Earnings: by Years of Experience (Five-and-Ten Cent Stores, Regulars).*

YEARS OF EXPERIENCE.	NUMBER OF WORKERS EARNING --											Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and over.	
Less than 1.	-	-	11	9	-	1	-	-	-	-	-	21
1 and less than 2.	-	-	8	12	-	-	-	-	-	-	-	20
2 and less than 3.	-	-	4	9	3	1	1	-	-	-	-	18
3 and less than 4.	-	-	1	10	7	1	-	-	-	-	-	19
4 and less than 5.	-	-	-	3	5	1	-	-	-	-	-	9
5 and less than 6.	-	-	1	1	1	-	1	1	-	1	-	5
6 and less than 7.	-	-	-	2	1	-	-	1	1	-	-	5
7 and less than 8.	-	-	-	-	2	-	1	-	1	-	-	5
8 and less than 9.	-	-	-	-	-	-	-	1	-	-	-	2
9 and less than 10.	-	-	-	1	-	-	-	-	-	1	-	3
10 and less than 11.	-	-	-	-	-	-	-	-	-	-	-	1
11 and less than 12.	-	-	-	-	-	-	-	-	-	-	-	-
12 and less than 13.	-	-	-	-	1	-	-	-	-	-	-	-
13 and less than 14.	-	-	-	-	-	-	-	-	-	-	-	-
14 and less than 15.	-	-	-	-	-	-	-	-	-	-	-	-
15 and over.	-	-	-	-	-	-	-	-	-	-	-	-
Total.	-	-	25	47	22	4	3	4	2	1	1	109

NOTE. — Data concerning years of experience were not available for 309 workers.

TABLE XXIV. — *Average Weekly Earnings: by Occupations (Five-and-Ten Cent Stores, Extras).*

OCCUPATION.	NUMBER AND PER CENT. OF WORKERS EARNING —																TOTAL.	
	UNDER \$1.		\$1 AND UNDER \$2.		\$2 AND UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND OVER.					
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Saleswomen,	74	31.0	124	51.9	13	5.4	14	5.9	11	4.6	2	.8	1	.4	239	100		
Total,	74	31.0	124	51.9	13	5.4	14	5.9	11	4.6	2	.8	1	.4	239	100		

TABLE XXV. — *Annual Earnings: by Occupations (Five-and-Ten Cent Stores, Extras).*

OCCUPATION.	NUMBER OF WORKERS WITH ANNUAL EARNINGS OF —										Total.
	Under \$25.	\$25 and under \$50.	\$50 and under \$75.	\$75 and under \$100.	\$100 and under \$125.	\$125 and under \$150.	\$150 and under \$175.	\$175 and under \$200.	\$200 and under \$225.	\$225 and under \$250.	\$250 and over.
Saleswomen,	148	70	14	4	—	2	1	—	—	—	239
Total,	148	70	14	4	—	2	1	—	—	—	239

TABLE XXVI. — *Fluctuation of Employment among 239 Workers: by Occupations (Five-and-Ten Cent Stores, Extras).*

OCCUPATION.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											
	12	11	10	9	8	7	6	5	4	3	2	1
Saleswomen, . . . . .	.4	3.3	4.6	7.1	9.6	13.8	18.4	27.2	40.2	52.3	61.9	100
Total, . . . . .	.4	3.3	4.6	7.1	9.6	13.8	18.4	27.2	40.2	52.3	61.9	100

FINANCIAL STATEMENT.

Appropriations:—

Salaries and expenses of the commissioners,	\$3,000 00	
Salary of the secretary,	2,000 00	
Clerical assistance,	3,200 00	
Salaries of four investigators,	4,000 00	
Additional appropriation for salaries of investigators (October 21),	1,000 00	
Compensation and expenses of wage boards,	2,500 00	
Office rent,	1,600 00	
Traveling and contingent expenses,	2,600 00	
		<hr/> \$19,900 00

Expenditures:—

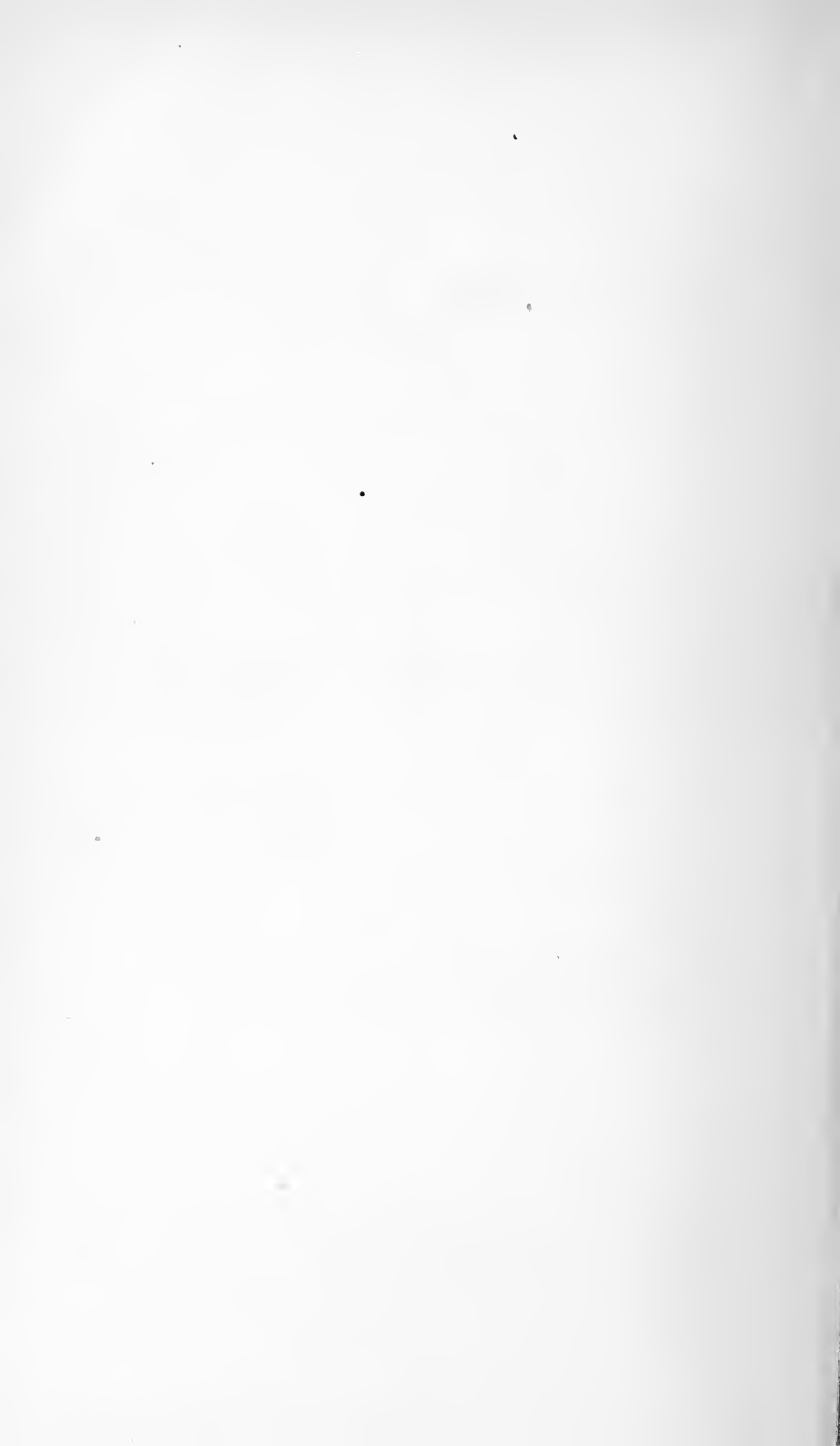
Salaries and expenses of the commissioners,	\$1,903 87	
Salary of the secretary,	2,000 00	
Clerical assistance,	3,198 34	
Salaries of investigators,	4,998 91	
Compensation and expenses of wage boards,	2,068 48	
Office rent,	1,530 63	
Traveling and contingent expenses:—		
Traveling expenses,	\$504 47	
Telephone and telegraph,	152 52	
Express and messenger,	18 83	
Stationery and office supplies,	696 02	
Printing,	945 56	
Postage,	132 25	
Books, periodicals, clippings,	94 14	
Miscellaneous,	47 64	
	<hr/> 2,591 43	
		<hr/> \$18,291 66

Unexpended balance reverting to State treasury:—

Salaries and expenses of the commissioners,	\$1,096 13	
Clerical assistance,	1 66	
Salaries of investigators,	1 09	
Compensation and expenses of wage boards,	431 52	
Office rent,	69 37	
Traveling and contingent expenses,	8 57	
	<hr/> 1,608 34	
		<hr/> \$19,900 00

Respectfully yours,

AMY HEWES,
Secretary.



APPENDICES.

APPENDIX No. 1.

CHAPTER 706, ACTS OF 1912, AS AMENDED BY CHAPTERS 330 AND 673, ACTS OF 1913, AND CHAPTER 368, ACTS OF 1914.

AN ACT TO ESTABLISH THE MINIMUM WAGE COMMISSION AND TO PROVIDE FOR THE DETERMINATION OF MINIMUM WAGES FOR WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. There is hereby established a commission to be known as the Minimum Wage Commission. It shall consist of three persons, one of whom may be a woman, to be appointed by the governor, with the advice and consent of the council. One of the commissioners shall be designated by the governor as chairman. The first appointments shall be made within ninety days after the passage of this act, one for a term ending October first, nineteen hundred and thirteen, one for a term ending October first, nineteen hundred and fourteen, and one for a term ending October first, nineteen hundred and fifteen; and beginning with the year nineteen hundred and thirteen, one member shall be appointed annually for the term of three years from the first day of October and until his successor is qualified. Any vacancy that may occur shall be filled in like manner for the unexpired part of the term.

SECTION 2. Each commissioner shall be paid ten dollars for each day's service, in addition to the traveling and other expenses incurred in the performance of his official duties. The commission may appoint a secretary, who shall be the executive officer of the board and to whose appointment the rules of the civil service commission shall not apply. It shall determine his salary, subject to the approval of the governor and council. The commission may incur other necessary expenses not exceeding the annual appropriation therefor, and shall be provided with an office in the state house or in some other suitable building in the city of Boston.

SECTION 3. It shall be the duty of the commission to inquire into the wages paid to the female employees in any occupation in the commonwealth, if the commission has reason to believe that the wages paid to a substantial number of such employees are inadequate to supply the necessary cost of living and to maintain the worker in health.

SECTION 4. If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of an equal number

of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public; but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall give notice to employers and employees in said occupation by publication or otherwise of its determination to establish a wage board and shall request that said employers and employees, respectively, nominate representatives for said board by furnishing names to the commission. The representatives of employers and employees shall be selected by the commission from names furnished by the employers and by the employees, respectively, provided that these names are furnished within ten days after the request of the commission. The commission shall designate as chairman one of the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determinations of the boards. The members of wage boards shall be compensated at the same rate as jurors, and they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission.

SECTION 5. The commission may transmit to each wage board all pertinent information in its possession relative to the wages paid in the occupation in question. Each wage board shall take into consideration the needs of the employees, the financial condition of the occupation and the probable effect thereon of any increase in the minimum wages paid, and shall endeavor to determine the minimum wage, whether by time rate or piece rate, suitable for a female employee of ordinary ability in the occupation in question, or for any or all of the branches thereof, and also suitable minimum wages for learners and apprentices and for minors below the age of eighteen years. When a majority of the members of a wage board shall agree upon minimum wage determinations, they shall report such determinations to the commission, together with the reasons therefor and the facts relating thereto.

SECTION 6. Upon receipt of a report from a wage board, the commission shall review the same, and may approve any or all of the determinations recommended, or may disapprove any or all of them, or may recommit the subject to the same or to a new wage board. If the commission approves any or all of the determinations of the wage board it shall, after not less than fourteen days' notice to employers paying a wage less than the minimum wage approved, give a public hearing to such employers, and if, after such public hearing, the commission finally approves the determination, it shall enter a decree of its findings and note thereon the names of employers, so far as they may be

known to the commission, who fail or refuse to accept such minimum wage and to agree to abide by it. The commission shall thereafter publish at such times and in such manner as it may deem advisable a summary of its findings and of its recommendations. It shall also at such times and in such manner as it shall deem advisable, publish the facts, as it may find them to be, as to the acceptance of its recommendations by the employers engaged in the industry to which any of its recommendations relate, and may publish the names of employers whom it finds to be following or refusing to follow such recommendations. An employer who files a declaration under oath in the supreme judicial court or the superior court to the effect that compliance with the recommendation of the commission would render it impossible for him to conduct his business at a reasonable profit shall be entitled to a review of said recommendation by the court under the rules of equity procedure. The burden of proving the averments of said declaration shall be upon the complainant. If, after such review, the court shall find the averments of the declaration to be sustained, it may issue an order restraining the commission from publishing the name of the complainant as one who refuses to comply with the recommendations of the commission. But such review, or any order issued by the court thereupon, shall not be an adjudication affecting the commission as to any employer other than the complainant, and shall in no way affect the right of the commission to publish the names of those employers who do comply with its recommendations. The type in which the employers' names shall be printed shall not be smaller than that in which the news matter of the paper is printed. The publication shall be attested by the signature of at least a majority of the commission.

SECTION 7. *Repealed.*

SECTION 8. Whenever a minimum wage rate has been established in any occupation, the commission may, upon petition of either employers or employees, reconvene the wage board or establish a new wage board, and any recommendation made by such board shall be dealt with in the same manner as the original recommendation of a wage board.

SECTION 9. For any occupation in which a minimum time rate only has been established, the commission may issue to any woman physically defective a special license authorizing the employment of the licensee for a wage less than the legal minimum wage: *provided*, that it is not less than the special minimum wage fixed for that person.

SECTION 10. The commission may at any time inquire into the wages paid to minors in any occupation in which the majority of employees are minors, and may, after giving public hearings, determine minimum wages suitable for such minors. When the commission has made such a determination, it may proceed in the same manner as if the determination had been recommended to the commission by a wage board.

SECTION 11. Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 12. Upon request of the commission, the director of the bureau of statistics shall cause such statistics and other data to be gathered as the commission may require, and the cost thereof shall be paid out of the appropriation made for the expenses of the commission.

SECTION 13. Any employer who discharges or in any other manner discriminates against any employee because such employee has testified, or is about to testify, or has served or is about to serve upon a wage board, or is or has been active in the formation thereof, or has given or is about to give information concerning the conditions of such employee's employment, or because the employer believes that the employee may testify, or may serve upon a wage board, or may give information concerning the conditions of the employee's employment, in any investigation or proceeding relative to the enforcement of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than two hundred dollars and not more than one thousand dollars for each offence.

SECTION 14. The commission shall from time to time determine whether employers in each occupation investigated are obeying its decrees, and shall publish in the manner provided in section six, the name of any employer whom it finds to be violating any such decree.

SECTION 15. Any newspaper refusing or neglecting to publish the findings, decrees or notices of the commission at its regular rates for the space taken shall, upon conviction thereof, be punished by a fine of not less than one hundred dollars for each offence.

SECTION 16. No member of the commission and no newspaper publisher, proprietor, editor or employee thereof, shall be liable to an action for damages for publishing the name of any employer in accordance with the provisions of this act, unless such publication contains some wilful misrepresentation.

SECTION 17. The commission shall, annually, on or before the first Wednesday in January, make a report to the general court of its investigations and proceedings during the preceding year.

SECTION 18. This act shall take effect on the first day of July in the year nineteen hundred and thirteen. [*Approved June 4, 1912.*]

APPENDIX No. 2.

MINIMUM WAGE DETERMINATIONS IN THE UNITED STATES IN EFFECT
DECEMBER, 1914.

STATE AND INDUSTRIES AFFECTED.	Employees covered.	Minimum Wage.
Massachusetts.		
Brush industry. Apprenticeship limited to one year. <i>In effect Aug. 15, 1914.</i>	Experienced women, . Experienced minors, . Learners and apprentices, .	\$0 15½ an hour. 15½ an hour. 10 an hour.
Minnesota.		
Mercantile, office, waitress or hairdressing occupations in any city of the first class. <i>In effect Nov. 22, 1914.</i>	Women and minors of ordinary ability.	9 00 a week.
Mercantile, office, waitress or hairdressing occupations in any city of the second, third and fourth classes. <i>In effect Nov. 22, 1914.</i>	Women and minors of ordinary ability.	8 50 a week.
Mercantile, office, waitress or hairdressing occupations in the State outside of cities of the first, second, third and fourth classes. <i>In effect Nov. 22, 1914.</i>	Women and minors of ordinary ability.	8 00 a week.
Manufacturing, mechanical, telephone, telegraph, laundry, dyeing, dry cleaning, lunch room, restaurant or hotel occupations in any city of the first class. <i>In effect Nov. 22, 1914.</i>	Women and minors of ordinary ability.	8 75 a week.
Manufacturing, mechanical, telephone, telegraph, laundry, dyeing, dry cleaning, lunch room, restaurant or hotel occupations in any city of the second, third and fourth classes. <i>In effect Nov. 22, 1914.</i>	Women and minors of ordinary ability.	8 25 a week.
Manufacturing, mechanical, telephone, telegraph, laundry, dyeing, dry cleaning, lunch room, restaurant or hotel occupations in the State outside of cities of the first, second, third and fourth classes. <i>In effect Nov. 22, 1914.</i>	Women and minors of ordinary ability.	8 00 a week.
Oregon.		
Manufacturing and mercantile establishments, millinery, dressmaking and hairdressing shops, laundries, hotels and restaurants, telephone and telegraph establishments and offices. <i>In effect Oct. 4, 1913.</i>	Girls, 16 to 18,	1 00 a day.
Manufacturing establishments in Portland. <i>In effect Nov. 10, 1913.</i>	Experienced adult women, .	8 64 a week.
Mercantile establishments in Portland. <i>In effect Nov. 23, 1913.</i>	Experienced adult women, .	9 25 a week.
Any office or office work in Portland. <i>In effect Feb. 2, 1914.</i>	Experienced adult women, .	40 00 a month.
Any industry in the State. <i>In effect Feb. 7, 1914.</i>	Experienced adult women, .	8 25 a week.
Maximum time any worker may be considered inexperienced is one year. <i>In effect Feb. 7, 1914.</i>	Inexperienced adult women,	6 00 a week.

MINIMUM WAGE DETERMINATIONS IN THE UNITED STATES IN EFFECT
DECEMBER, 1914 — *Concluded.*

STATE AND INDUSTRIES AFFECTED.	Employees covered.	Minimum Wage.
Utah.		
All industries. Law applies to all women workers in the State. Apprenticeship limited to one year. <i>In effect May 13, 1913.</i>	Experienced adult women, Under 18, Adult learners and apprentices.	\$1 25 a day. 75 a day. 90 a day.
Washington.		
Mercantile establishments. Apprenticeship limited to one year. Not more than 17 per cent. of adult women in any establishment can be apprentices; one-half of these must be in the second six months. <i>In effect June 27, 1914.</i>	Women over 18, Minors under 18, Apprentices for first six months. Apprentices for second six months.	10 00 a week. 6 00 a week. 6 00 a week. 7 50 a week.
Factories. <i>In effect Aug. 1, 1914.</i>	Women over 18, Minors under 18,	8 90 a week. 6 00 a week.
Laundries and dye works. <i>In effect Aug. 24, 1914.</i>	Women over 18, Minors under 18,	9 00 a week. 6 00 a week.
Telephone or telegraph. <i>In effect Sept. 7, 1914.</i>	Women over 18, Minors under 18,	9 00 a week. 6 00 a week.

THIRD ANNUAL REPORT

OF THE

MINIMUM WAGE COMMISSION

OF

MASSACHUSETTS.

FOR THE YEAR ENDING DECEMBER 31, 1915.



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CONTENTS.

	PAGE
MEMBERS OF THE COMMISSION,	5
REPORT OF THE COMMISSION: —	
Change in the Personnel of the Commission,	7
Women's Wages in Massachusetts,	7
Minimum Wage Boards in Massachusetts,	9
The Work of the Wage Boards,	10
Cost of Living,	11
Financial Conditions of Occupations,	11
Determinations of Minimum Wage Boards,	12
Review of Determinations by the Commission,	13
The Enforcement of Minimum Wage Determinations,	14
Brush Industry,	14
Laundries,	15
Retail Stores,	16
Effect of the Minimum Wage in the Brush Industry,	16
Effects of the Minimum Wage in Other Occupations,	18
Recommended Legislation,	18
Appropriation,	22
REPORT OF THE SECRETARY: —	
The Effect of the Minimum Wage Decree on the Brush Industry in Massachusetts,	24
Wages of Women in the Paper-box Factories in Massachusetts,	35
Wages of Women in Women's Clothing Factories in Massachusetts,	67
Wages of Women in Hosiery and Knit Goods Factories in Massachu- setts,	99
Financial Statement,	132
APPENDIX NO. 1: —	
Minimum Wage Legislation of the Commonwealth of Massachusetts,	135
APPENDIX NO. 2: —	
Minimum Wage Decrees in Force in Massachusetts Jan. 1, 1916,	140

MEMBERS OF THE COMMISSION.

— — —, *Chairman.*

MABEL GILLESPIE.

ARTHUR N. HOLCOMBE.

ELLEN NATHALIE MATTHEWS, *Secretary.*

The Commonwealth of Massachusetts.

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Massachusetts Minimum Wage Commission herewith respectfully submits the following report, covering the year ending Dec. 31, 1915. To it is appended the report of the secretary, showing in detail the results of the operation of the minimum wage in the brush industry and of the Commission's investigations into the wages of women in the paper-box and women's clothing factories and in the hosiery and knitting mills of the Commonwealth, together with other information regarding the work of the Commission. Copies of the minimum wage law, as amended, and of the decrees entered by the Commission and in force on Jan. 1, 1916, are also appended.

CHANGE IN THE PERSONNEL OF THE COMMISSION.

On Sept. 30, 1915, the term of the Rev. Robert E. Bisbee of South Middleborough, chairman of the Commission since November, 1914, expired. Mr. Bisbee declined a reappointment, and the resulting vacancy in the Commission has not yet been filled. In September, also, the Commission, to its great regret, lost the services of its first secretary, Miss Amy Hewes, who resumed her duties as professor of economics and sociology at Mount Holyoke College. The vacancy was filled by the appointment of Miss Ellen Nathalie Matthews.

WOMEN'S WAGES IN MASSACHUSETTS.

The first duty of the Minimum Wage Commission is to inquire into the wages paid to the female employees in any

occupation in the Commonwealth, if the Commission has reason to believe that the wages paid to a substantial number of such employees are inadequate to supply the necessary cost of living and to maintain the worker in health.¹ The report of the original Commission on Minimum Wage Boards,² recommending the enactment of a minimum wage law, gave the present Commission reason to believe that the wages paid to a substantial number of female employees in at least three occupations — employment in the manufacture of confectionery, in laundries and in retail stores — were inadequate for the purposes indicated in the law. Various Federal and State reports on the wages of women, cited by the Commission on Minimum Wage Boards, indicated that there were probably many more such occupations in Massachusetts.

The annual reports of the Massachusetts Bureau of Statistics on the Statistics of Manufactures are believed by the Commission to be the most up-to-date and reliable sources of general information concerning the wages of women in Massachusetts industries. These reports are based upon information voluntarily supplied by the employers, and so far as they go may be expected to show the facts concerning the wages of women in no more unfavorable light than is necessary. Acting upon the evidence contained in the original report of the Commission on Minimum Wage Boards, and in subsequent reports of the Bureau of Statistics, the present Commission from its organization in 1913 to the close of 1915 has inquired into the wages of women in nine occupations, as follows: in 1913 (July to December), the manufacture of brushes and corsets; in 1914, confectionery, laundries and retail stores; and in 1915, paper boxes, women's clothing, hosiery and knit goods, and men's clothing. The principal facts which gave the Commission reason to believe that wages were too low in these occupations are summarized in the following table: —

¹ Section 3 of chapter 706, Acts of 1912, as amended.

² House Document No. 1697, 1912.

INDUSTRY. ¹	Number of Establishments.	AVERAGE NUMBER OF EMPLOYEES.		PER CENT. OF FEMALES EARNING ² —	
		Males.	Females.	Under \$6.	Under \$3.
Brushes,	27	771	795	25.4	66.6
Corsets,	11	326	2,651	21.9	49.9
Confectionery,	121	1,882	5,343	31.5	71.2
Laundries, ³	377	2,831	5,329	14.4	59.7
Boxes, fancy and paper, .	95	1,488	2,807	18.4	47.7
Clothing, women's, . . .	184	1,425	4,627	13.6	39.6
Hosiery and knit goods, .	65	2,932	7,807	16.7	46.5
Clothing, men's, . . .	206	2,634	3,179	13.5	42.8

Figures for women employed in retail stores are not furnished by the Massachusetts Bureau of Statistics. According to the thirteenth United States Census, 21,434 women were employed in 1909 as saleswomen and clerks in stores in Massachusetts.⁴ This figure is probably somewhat less than the total number of women employed in retail establishments.⁵ The Commission's belief that the wages of women in these occupations were too low was confirmed by its own more detailed investigations. The results of these investigations have been published separately by the Commission. They are reprinted in the reports of the secretary, appended to the Commission's annual report, with the exception of that on men's clothing, which will appear shortly.

MINIMUM WAGE BOARDS IN MASSACHUSETTS.

The second duty of the Commission is defined in the law as follows: —

If after such investigation the Commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish

¹ The information relating to all occupations, except laundries, is taken from the annual report of the Bureau of Statistics on the Statistics of Manufactures for the year 1913, pp. 2-11 and pp. 84-123.

² This includes only females eighteen years of age or over for the week of employment of the greatest number, and shows their rates of payment. This showing is therefore much more favorable than would be the actual average weekly earnings of all females, or the same females for the whole year.

³ Massachusetts Bureau of Statistics report on Power Laundries, 1913, pp. 17, 18, 22.

⁴ United States thirteenth census, Vol. IV., p. 474.

⁵ Minimum Wage Commission, Bulletin No. 6, Wages of Women in Retail Stores, p. 6.

a wage board consisting of an equal number of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public.¹

It became the Commission's duty, therefore, to establish a wage board in each of the above occupations, when the completion of its own investigation confirmed the belief founded on such evidence as had previously been available. In 1913 the brush makers' wage board was established, consisting of six representatives of the employers, an equal number of persons representing the employees, and three disinterested persons to represent the public. The chairman of the board was Mr. Robert G. Valentine. In 1914 wage boards were established in the confectionery and laundry industries under the chairmanship of Mr. William C. Ewing and Judge Edward L. Logan, respectively. In 1915 wage boards were established in the retail store, corset and paper-box industries under the chairmanship of Prof. Carroll W. Doten, Judge William C. Forbes and Mr. Frank H. Pope, respectively. A wage board in the women's clothing industry is now being established. All these boards were established upon the model of the brush makers' wage board, with the exception of the laundry wage board, which included only one representative of the public, the chairman, and of the corset wage board, which also included only one representative of the public and differed further from the brush board by having on it only three representatives of the employers and employees, respectively.

THE WORK OF THE WAGE BOARDS.

The wage boards are directed by law to take into consideration (1) the needs of the employees and (2) the financial condition of the occupation and the probable effect thereon of any increase in the minimum wages paid, and to endeavor to determine the minimum wage suitable for a female employee of ordinary ability in the occupation in question, and also suitable minimum wages for learners and apprentices and for minors below the age of eighteen years.

¹ Section 4 of chapter 706, Acts of 1912, as amended.

When a majority of the members of a wage board agree upon minimum wage determinations, they are to report such determinations to the Commission, together with the reasons therefor and the facts relating thereto.¹ Only four wage boards had completed their work and reported to the Commission by the close of 1915, namely, the brush, confectionery, laundry and retail store boards.

Cost of Living.

All four boards reached similar conclusions with respect to the needs of the employees. The brush makers' board tentatively estimated that a normal self-supporting woman of ordinary ability employed in a Massachusetts brush factory would need at least \$8.71 a week to supply the cost of living and maintenance in health. Allowing for variations between individuals, this board finally concluded that "the sum required to keep alive and in health a completely self-supporting woman in Boston is in no case less than \$8, and in many cases may rise to \$9 or more."² The candy board estimated the required sum at \$8.75 a week; the laundry board at \$8.77. The retail store board reported that it had not seemed necessary to determine in exact terms and in detail the necessary cost of living, but that it considered the necessary cost of living to be at least as much as and probably somewhat more than \$8.50 a week. In each of these occupations, therefore, considerable increases in the minimum wages paid were necessary in order that they might be adequate for the purposes indicated in the minimum wage law.

Financial Conditions of Occupations.

The boards reached different conclusions with respect to the financial conditions of the occupations and the probable effect thereon of any increase in the minimum wages paid.

The brush board reported (June, 1914) that it believed the brush industry to be "not in condition to pay as high a minimum wage or to bring it as near the actual cost of living as many other industries in the State." The candy

¹ Section 5 of chapter 706, Acts of 1912, as amended.

² Bulletin No. 3 of the Minimum Wage Commission, entitled *Statement and Decree concerning the Wages of Women in the Brush Industry in Massachusetts*, Appendix No. 1.

board reported (February, 1915) that that industry could afford to pay a minimum wage to experienced workers sufficient to cover the estimated cost of living. The laundry board reported (May, 1915) that in consideration of the financial condition of the industry during the then existing industrial depression, it would recommend for the present a minimum weekly wage of 77 cents less than the estimated cost of living.

The retail store board reported (August, 1915) that "the schedule of wages adopted is as high as the retail stores of the State will be able to pay until industrial and business conditions shall have shown a marked improvement. . . . When this adjustment to the higher wage scale has been accomplished, however, and when the business is in a more prosperous condition, the rates herein may and perhaps ought to be advanced to a somewhat higher level."

Determinations of Minimum Wage Boards.

Having duly considered the needs of the employees, the financial condition of the occupations, and the probable effect thereon of any increases in the minimum wages paid, the wage boards agreed upon determinations and reported to the Commission in accordance with the law. The brush board recommended a minimum wage for experienced workers of 15½ cents an hour. The candy board recommended \$8.75 a week; the laundry board, \$8 a week; the retail store board, \$8.50 a week. Lower rates were recommended for inexperienced workers. These recommendations were concurred in by all the representatives of the public and of the employees on each board, and also, in the case of the retail store board, by all but one of the representatives of the employers. The reports of the several boards showing the reasons for their determinations and the facts relating thereto mark a new stage in the relations between capital and labor in this Commonwealth. The introduction of the legal minimum wage, as has been well said, opens up a new province for law and order.¹

¹ Justice Henry B. Higgins of the Australian High Court of Justice, in the Harvard Law Review, November, 1915.

REVIEW OF DETERMINATIONS BY THE COMMISSION.

The third duty of the Commission is to review the reports received from wage boards, and, if it approves any of the determinations recommended by a wage board, to give a public hearing to all employers paying wages less than those recommended. If, after such public hearing, the Commission finally approves the determinations of the board, it is required to enter a decree of its findings and note thereon the names of employers, so far as known, who fail or refuse to accept the recommended minimum wage and to agree to abide by it.¹ The Commission accordingly gave public hearings to the employers in the brush, confectionery, laundry and retail store industries. At the laundry hearing (June, 1915) no employers appeared. At the brush and retail store hearings (June, 1914, and August, 1915, respectively) comparatively few employers were present or were represented by counsel, but no testimony or evidence was produced tending to show that the determinations of the wage boards in question were unreasonable. At the confectionery hearings (February and March, 1915) the principal employers were present or were represented by counsel, and much testimony with other evidence was produced which was alleged to show that the determinations of the board were arbitrary and oppressive to employers. The Commission, after careful consideration of the facts and arguments presented at the hearing, was unable to perceive that the determinations of the board had been shown to be unreasonable.

The Commission, therefore, believing the reasons reported by the several wage boards in support of their determinations to be adequate, finally approved the determinations recommended by them. Copies of the decrees entered by the Commission in consequence of its final approval of the determinations of the brush, laundry and retail store wage boards are printed in the Appendix. The brush decree became effective on Aug. 15, 1914, the laundry decree on Sept. 1, 1915, and the retail store decree on Jan. 1, 1916. The confectionery decree was intended to become effective on Oct. 1,

¹ Section 6 of chapter 706, Acts of 1912, as amended.

1915. In June, however, the Commission was advised by the Attorney-General that a technical defect in the original organization of the candy makers' wage board had probably rendered its determinations invalid. The Commission therefore resolved to reorganize the board. The employers, however, after duly nominating their representatives to the new board, applied to the courts for an injunction to restrain the Commission from further proceedings in the matter. The Commission has refrained from further proceedings, though the injunction has not yet been granted to the employers.

THE ENFORCEMENT OF MINIMUM WAGE DETERMINATIONS.

The fourth duty of the Commission is to publish at such times and in such manner as it may deem advisable a summary of its findings and of its recommendations and the facts as to the acceptance of its recommendations by employers. It may also publish the names of employers whom it finds to be following or refusing to follow its recommendations.¹ The Commission is further required to determine from time to time whether employers in the occupations for which minimum wage determinations have been approved are obeying its decrees, and at its discretion to publish the name of any employer found to be violating a decree.² At the time of entering its decrees relating to the wages of women in brush factories, laundries and retail stores, the Commission published summaries of its findings and recommendations in the form of special bulletins or statements, which were widely copied in whole or in part in the newspapers of the Commonwealth.

Brush Industry.

In the case of the brush industry two subsequent investigations have been made to determine whether employers were paying not less than the recommended minimum wages. At the first investigation (November and December, 1914) five employers were found to be paying less than the recommended minimum wages to a total of eighteen female employees. Thereafter (February, 1915) the Commission

¹ Section 6 of chapter 706, Acts of 1912, as amended.

² Section 14 of chapter 706, Acts of 1912, as amended.

caused to be published in the "Boston Advertiser" the names of all employers who had accepted its recommendations relating to wages in brush factories and who were known to be paying not less than the recommended minimum wages. At the second investigation (June and July, 1915) three employers were found to be paying less than the recommended minimum wages to a total of five female employees. This almost complete compliance is perhaps as much as should be expected under the present law. It is notable that such a high degree of compliance with the decree relating to wages in brush factories was secured without publishing the names of employers other than those who accepted the decree and were following it. The Commission deems it unnecessary to publish the names of other employers at the present time.

Laundries.

In the case of the laundries, the Commission at the time of entering its decree not only gave out to the newspapers and general public a summary of its findings and recommendations, but also prepared special notices to be posted in the laundries for the further information of female employees. Authority to cause notices to be posted in that manner was conferred upon the Commission by a law enacted by the last Legislature at the request of the Commission.¹ These notices were not so generally posted by employers as might have been expected. Laundry employers, indeed, have been less generally disposed to accept the Commission's recommendations than the brush employers were. In November, 1915 (after the laundry decree had been effective for a period long enough to enable employers to make all appropriate changes in their wage schedules), the Commission proceeded to the investigation necessary to determine the degree of compliance with its decree. The employers generally declined, however, to permit its agents to examine their records so far as related to the wages paid to female employees, though the duty to permit such an examination is expressly imposed upon them by law.² The Commission has

¹ Chapter 65, General Acts of 1915.

² Section 11 of chapter 706, Acts of 1912, as amended.

consequently been compelled to make a more vigorous use of its powers to enforce its decrees than was necessary in the brush industry. A number of employers have been subpoenaed to appear before the Commission with such parts of their books and records as relate to the wages paid to female employees, and the Commission will use all the powers conferred upon it by law to secure compliance with this decree.

Retail Stores.

In the case of the retail stores the Commission at the time of entering its decree published a summary of its findings and recommendations in the same manner as in the case of the laundries. As might be expected from the fact that the determinations of the retail store wage board were approved by all but one of the employers' representatives on the board, the Commission's recommendations relating to the wages of women in retail stores have been much more generally accepted by the principal employers than the recommendations relating to wages in laundries. Directly after the retail store decree became effective (Jan. 1, 1916), the Commission published the facts as to the acceptance thereof by employers, beginning with those in the county of Suffolk.

EFFECT OF THE MINIMUM WAGE IN THE BRUSH INDUSTRY.

The wages recommended for women employed in brush factories became effective under circumstances which put the theory of the minimum wage to the severest test. In June, 1914, when the brush makers' wage board made its final report to the Commission, the brush industry was somewhat depressed, but not much more so than at any time during the last two or three years. In August, when the wages recommended by the Board were to become effective, the European war had broken out. The supply of bristles, the most important raw material of brushes, was interrupted, and the production of brushes seriously curtailed. When the supply of bristles had been restored, the general business depression injuriously affected the demand for brushes, and the period of curtailed production and consequent restricted employment was prolonged. The brush business revived in the

spring of 1915, with the general revival of industry in the United States, and by June had regained its normal condition. Meanwhile, however, false and misleading reports were being circulated concerning the alleged injurious effects of the minimum wage upon the brush industry. In June, therefore, the Commission caused an investigation to be made to determine what effects had really been produced by the minimum wage.

This investigation consisted of an examination of the voluntary statements of the employers to the Massachusetts Bureau of Statistics for publication in the official Statistics of Manufactures, and of the pay rolls of the nineteen brush factories which were employing women both in 1913, when the Commission first investigated the brush industry, and in 1915, when business conditions were again approaching the normal. The results of the investigation were published as a special bulletin,¹ a copy of which is appended to this report.

The results may be briefly summarized as follows: (1) the establishment of the minimum wage in the brush industry has been followed by a remarkable increase in the earnings of women employed in that industry; (2) the employment of women at ruinously low rates has been practically stopped; (3) the proportion of women employed at more than the prescribed minimum rate has more than doubled; and (4) all this has been accomplished without putting an unreasonable financial burden upon the industry.

During the last two years the total number of brush establishments in Massachusetts has increased, the total capital invested has increased, the total value of material used has increased, and the total value of product has increased. Though the industry was temporarily hard hit by the war, so were many other industries of the Commonwealth in which the minimum wage has not been established. In short, the evidence shows that the establishment of the minimum wage has been followed by the desired results, both in the industry as a whole and in every individual establishment where the management has been willing to give it a fair trial.

¹ Bulletin No. 7, September, 1915, The Effect of the Minimum Wage Decree on the Brush Industry in Massachusetts.

EFFECTS OF THE MINIMUM WAGE IN OTHER OCCUPATIONS.

It is too soon to determine the effects of the minimum wage in the other occupations to which it has been applied. The Commission, however, expects the results to be more rather than less favorable in the laundries and retail stores. Financial conditions in those occupations are better than in the brush industry, and the condition of business in general is better than it was a year ago. There is no more favorable season than one of advancing prosperity for establishing the principle that women who work for a living shall, so far as is humanly possible, make a living by their work. The Massachusetts minimum wage law merely requires that employers of women at least consider whether they cannot pay their female employees enough to supply the cost of living and maintenance in health. It does not compel them to pay any particular amount. The Commission can only recommend that employers accept the determinations of the wage boards. In fact, no one of the three determinations now in force fixes the minimum wage at the level estimated by the wage boards to be necessary to supply the cost of living and maintenance in health. In each case allowances were made for exceptional financial conditions. Moreover, the Commission's recommendations relate only to rates of wages. In so far as low earnings are the result of irregular employment, rather than low rates of wages, the situation is one calling for a different remedy than the minimum wage. Under these circumstances it is strange that some employers refuse even to consider whether a living wage can be paid to their female employees. The Commission does not believe that such a refusal represents the sober second thought of employers generally, nor does it believe that under existing conditions such a refusal would be tolerated for long by public opinion in this Commonwealth.

RECOMMENDED LEGISLATION.

The experience of the year has made it evident that additional legislation is necessary in order to facilitate the performance of the duties of the Commission as prescribed

in the present law. Every employer of women and minors is now required to keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor.¹ In order, however, that a wage board may have all pertinent information relative to the wages paid in any occupation, it is important that the employers should also keep a record of the number of hours each week for which women and minors in their employ are paid. Without this information it is difficult in many cases to know whether low earnings are the result of unreasonably low rates of wages or of irregular employment at rates in themselves not unreasonably low. If earnings were solely the result of irregular employment, the action which should be taken by a wage board would be different from that necessary if low earnings resulted from the payment of unreasonably low rates. The Commission therefore recommends the following legislation requiring certain employers to keep records of hours worked by women and minors in their employ: —

AN ACT TO PROVIDE FOR RECORDS OF HOURS OF EMPLOYMENT OF
WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. Section eleven of chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended by chapters three hundred and thirty and six hundred and seventy-three of the acts of the year nineteen hundred and thirteen and chapter three hundred and sixty-eight of the acts of the year nineteen hundred and fourteen, is hereby further amended by inserting after the word "minor", in the fourth line, the words: — and a record of the hours worked by each of such employees each week: *provided*, that such record of hours shall not be required in the case of women and minors who are paid a fixed weekly wage or rate, without deduction for hours of unemployment, — so as to read as follows: — *Section 11.* Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and a record of the hours worked by each of such employees each week: *provided*, that such record of hours shall not be required in the case of women and minors who are paid a fixed weekly wage or

¹ Section 11 of chapter 706, Acts of 1912, as amended.

rate, without deduction for hours of unemployment, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 2. This act shall take effect upon its passage.

The Commission has been advised that the meaning of the existing law with respect to the Commission's power to appoint and remove members of wage boards is uncertain, and should be further defined by appropriate legislation. In the case of the corset wage board, the Commission accepted the resignation of one of the representatives of the employees. It was then advised by the Attorney-General that it had no power to fill the resulting vacancy. It was further advised by the chairman of the board, Judge Forbes, that any determinations which the board might reach would probably be invalid unless the vacancy were filled. In order to prevent the recurrence of such a dilemma the Commission recommends the following legislation empowering the Commission to fill vacancies arising in wage boards:—

AN ACT TO PROVIDE FOR FILLING VACANCIES ON WAGE BOARDS.

Be it enacted, etc., as follows:

SECTION 1. Section four of chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended by chapters three hundred and thirty and six hundred and seventy-three of the acts of the year nineteen hundred and thirteen and chapter three hundred and sixty-eight of the acts of the year nineteen hundred and fourteen, is hereby further amended by adding thereto the following:—The commission shall have power to fill a vacancy or vacancies arising in a duly constituted wage board by appointing a sufficient number of suitable persons to complete the representation of the employers, employees, or public, as the case may be,—so as to read as follows:—*Section 4.* If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a

wage board consisting of an equal number of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public; but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall give notice to employers and employees in said occupation by publication or otherwise of its determination to establish a wage board, and shall request that said employers and employees, respectively, nominate representatives for said board by furnishing names to the commission. The representatives of employers and employees shall be selected by the commission from names furnished by the employers and by the employees, respectively: *provided*, that these names are furnished within ten days after the request of the commission. The commission shall designate as chairman one of the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determination of the boards. The members of wage boards shall be compensated at the same rate as jurors, and they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission. The commission shall have power to fill a vacancy or vacancies arising in a duly constituted wage board by appointing a sufficient number of suitable persons to complete the representation of the employers, employees, or public, as the case may be.

SECTION 2. This act shall take effect upon its passage.

The experience of the Commission shows that further powers of enforcement are necessary to insure proper publicity for its decrees. It therefore recommends the following legislation: —

AN ACT TO PROVIDE FOR THE POSTING OF INFORMATION IN PLACES
OF EMPLOYMENT.

Be it enacted, etc., as follows:

SECTION 1. Section one of chapter sixty-five of the general acts of the year nineteen hundred and fifteen is hereby amended by adding thereto the following: — and the commission shall require employers to post and keep posted in conspicuous positions in their places of employment such bulletins as the commission may issue regarding the minimum rates of wages for female employees. Whoever violates the provisions of this act shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than ten and not more than fifty dollars for each offence. The minimum wage commission and the state

board of labor and industries shall have power to enforce the provisions of this act, — so as to read as follows:— *Section 1.* The minimum wage commission may require employers to post in conspicuous positions in their places of employment such notices as the said commission may issue, for the information of employees, and the commission shall require employers to post and keep posted in conspicuous positions in their places of employment such bulletins as the commission may issue regarding the minimum rates of wages approved for female employees. Whoever violates the provisions of this act shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than ten and not more than fifty dollars for each offence. The minimum wage commission and the state board of labor and industries shall have power to enforce the provisions of this act.

SECTION 2. This act shall take effect upon its passage.

APPROPRIATION.

The appropriation for the fiscal year ending Nov. 30, 1915, was \$17,900. The manner in which this money has been employed is shown in the financial statement appended to the secretary's report. This sum was not enough to support the work planned by the Commission for the year 1915. The commissioners themselves served without pay for a considerable portion of the year, and, what was much more important, the work of the wage boards was seriously hampered. If the Commission is to make due progress in its work during the coming period of prosperity, it must either have a larger appropriation or require wage boards to perform their duties with inadequate information concerning the needs of employees, financial conditions in the occupations with which they are dealing, and probable effects thereon of any increases in the minimum wages paid. To the close of 1915 the Commission has investigated occupations containing more than 50,000 female employees; it has established wage boards to deal with occupations containing nearly 40,000 female employees, and it has approved determinations of wage boards applying to occupations containing more than 25,000 female employees. Now it asks for an appropriation for 1916 sufficient to enable it to investigate other occupations containing about 30,000 female employees, and to support the work of the wage boards already established or likely to be established within the next twelve months. The total num-

ber of women employed in the occupations covered by the report on the Statistics of Manufactures for 1913 published by the Bureau of Statistics was 189,743. This does not include girls under eighteen, nor establishments with less than \$5,000 value of product, nor laundries, retail stores, and several other important occupations in which women are employed. It is manifest that much work remains to be done before the people of this Commonwealth can feel that the State has fulfilled its duty to the women who toil in factories, shops and mills.

Respectfully submitted,

MABEL GILLESPIE,
ARTHUR N. HOLCOMBE,
Minimum Wage Commission.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following report of the investigations into the effect of the minimum wage decree on the brush industry in Massachusetts, and into the wages of women in the paper-box, women's clothing and hosiery and knit goods factories of this Commonwealth, and a summary of the expenditure of the appropriation for 1915 granted by the General Court. Of the investigations herewith submitted all but the last were made under the direction of Miss Amy Hewes, former secretary of the Commission.

THE EFFECT OF THE MINIMUM WAGE DECREE ON THE BRUSH INDUSTRY IN MASSACHUSETTS.

In the months of July and August, 1913, the Minimum Wage Commission made a study of the wages paid to women employed in the brush industry in Massachusetts.¹ Acting on the information obtained, and as authorized by law,² the Commission formed a wage board to recommend minimum rates for the occupation in question.³ Upon receipt of the final report of the Brush Makers' Wage Board, and after public hearing held thereupon, the following decree was made by the Commission:⁴ —

1. The lowest time wage paid to any experienced female employee in the brush industry shall be 15½ cents an hour.

2. The rate for learners and apprentices shall be 65 per cent. of the minimum, and the period of apprenticeship shall not be more than one year.

3. These findings shall apply also to all minors.

4. If in any case a piece rate yields less than the minimum time rate, persons employed under such rate shall be paid at least 15½ cents an hour.

5. This decree shall take effect on Aug. 15, 1914, and shall remain in effect until altered by the Commission.

¹ Bulletin No. 1, Minimum Wage Commission, January, 1914.

² Chapter 706, Acts of 1912, as amended.

³ Bulletin No. 3, Minimum Wage Commission, Aug. 15, 1914 (Statement and Decree concerning the Wages of Women in the Brush Industry in Massachusetts).

⁴ *Ibid.*, p. 15.

The rates prescribed have now been in force more than a year, and the effect of the increases on the brush industry is a matter which has been variously interpreted by manufacturers, by employees and by the public. The Commission has made two reinspections of the brush factories, — one in November and December, 1914, for the purpose of locating whatever instances of failure or refusal to follow the rulings might exist, and the second in June and July, 1915, for the purpose of ascertaining the effects of the rates upon the industry as well as to record violations. The Commission is therefore in a position to report the degree of compliance with the decree of Aug. 15, 1914, and the effect of the rates upon the industry, in so far as it has been able to determine that effect.

Nineteen of the 29 brush factories known to have been in operation in the State during the period covered since the original investigation have been regularly employing women at the time of one or more of the inspections. Concerning these 19 factories, the pay rolls of which have been inspected by the agents of the Commission, the following statements may be made with reference to the extent of compliance with the decree: —

At the time of the first inspection of factories after the decree went into effect non-compliance with the rates prescribed was found on the pay rolls of five firms, and 18 women employees of these firms were in receipt of less than the prescribed hourly amounts. Two firms failed to keep records adequate to show whether or not they complied. In compliance with section 6, chapter 706, Acts of 1912, as amended, the Commission therefore caused to be published in the "Boston Advertiser" for Feb. 12, 1915, the following notice:¹ —

COMMONWEALTH OF MASSACHUSETTS.

MINIMUM WAGE COMMISSION.

Notice is hereby given that the following manufacturers of brushes employing women have accepted the decree issued by this Commission Aug. 15, 1914, and are known to be paying not less than 15½ cents per

¹ Establishments in which records of hours were not kept, and for which compliance with the decree, therefore, could not be proved, were omitted from the published list.

hour to experienced female and minor employees and not less than sixty-five per cent. of that rate to female and minor learners and apprentices as specified in the decree: —

Akerly Manufacturing Company, Reading.
American Brush Company, Springfield.
Bowditch, John F., Boston.
Burton, A. & E., Company, Cambridge.
Fiberloid Company, Springfield.
Florence Manufacturing Company, Northampton.
Good, W. P., Brush Company, Boston.
Hardy, Frank H., Andover.
Jordan, Samuel E., Malden.
Pushee, J. C., & Sons, Boston.
Ramus, Christian F. W., East Boston.
Whiting, John L., J. J. Adams Company, Boston.

In June and July, 1915, three firms were refusing to pay the rates, and 5 women, or 1 per cent. of the number for whom wage records were taken, were accordingly receiving lower wages than those set in the decree of Aug. 15, 1914. The number and proportion of violations of the decree have therefore decreased materially since the publication of names, and have probably at the present time reached as low a percentage as can be expected under any law. In both years all of the establishments failing to pay the rate were small factories employing less than 15 women.

No employer has taken advantage of that provision of section 6 of the minimum wage law¹ which permits an employer, who believes that conformance to the rates would prevent his doing business at a reasonable profit, to secure a judicial review of the order of the Commission.

The following table, showing comparative rates for 1913 and 1915, shows equally striking differences between the rates scheduled in 1913 and the rates scheduled in 1915. In comparing rates and actual earnings it is to be noted that since the decree for the brush industry was made on the basis of an hourly rate, workers at the minimum who are out of the factory for a few hours will appear in the table of earnings as receiving considerably less than the \$8.37 which would be paid for a full fifty-four hours' work.

¹ Section 6, chapter 706, Acts of 1912, as amended.

Weekly Rates for All Establishments, 1913 and 1915.

YEAR.		NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —													
		UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.	
		Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
1913,	.	1	.3	45	11.5	134	34.1	115	29.1	57	14.5	19	4.9	22	5.6
1915,	.	-	-	-	-	29	10.5	18	6.6	10	3.6	187	63.0	31	11.3
														393	100
														275	100

NOTE. — Of the total 597 persons whose records were studied, weekly rates were not available for 204 (1913). Of the total 485 persons whose records were studied, weekly rates were not available for 210 (1915).

The increases in wages which have occurred under the operation of the decree are shown in the following tables, affording comparison between earnings in 1913 and earnings in 1915. The percentage of women workers who earned less than \$6 in the week selected for comparison was 61.4 in 1913 and only 19.8 in 1915. The percentage earning over \$9 increased from 10.2 to 19.4, showing that wages have tended to increase even above the minimum,¹ or, in other words, that the minimum does *not* tend to become the maximum.

¹ At 15½ cents an hour the minimum for fifty-four hours is \$8.37.

Weekly Earnings for the Second Week in June, 1913: by Occupations.

OCCUPATIONS.		NUMBER AND PER CENT. OF WORKERS EARNING —												TOTAL.	
		UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.	
		Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
Brush making,	. . . . .	13	9.4	38	27.6	42	30.4	17	12.3	16	11.6	5	3.6	7	5.1
Finishing,	. . . . .	14	10.1	44	31.9	41	29.7	10	7.2	7	5.1	6	4.4	16	11.6
Setting,	. . . . .	9	12.7	8	11.3	10	14.1	19	26.7	10	14.1	9	12.7	6	8.4
Nailing,	. . . . .	4	13.3	5	16.7	12	40.0	5	16.7	1	3.3	1	3.3	2	6.7
Cementing,	. . . . .	4	18.2	5	22.7	6	27.3	3	13.7	2	9.1	1	4.5	1	4.5
Packing and shipping,	. . . . .	1	4.5	11	50.0	6	27.3	3	13.7	—	—	1	4.5	—	—
Drawing,	. . . . .	4	20.0	4	20.0	2	10.0	3	15.0	1	5.0	—	—	6	30.0
Soldering,	. . . . .	8	61.5	1	7.7	1	7.7	3	23.1	—	—	—	—	—	—
Hammering,	. . . . .	—	—	—	—	3	60.0	2	40.0	—	—	—	—	—	—
Less than ten workers,	. . . . .	2	5.0	5	12.5	5	12.5	4	10.0	5	12.5	6	15.0	13	32.5
Miscellaneous machine processes,	. . . . .	4	30.7	2	15.4	3	23.1	2	15.4	1	7.7	—	—	1	7.7
More than one process,	. . . . .	—	—	—	—	3	33.3	2	22.3	3	33.3	—	—	1	11.1
Total,	. . . . .	63	12.1	123	23.6	134	25.7	73	14.0	46	8.8	29	5.6	53	10.2
														521	100

This remarkable increase in wages must be considered in connection with the course of the industry during the same period. The comments made by employers of women in the brush industry have differed widely in their bearing. In common with the previous inspections, the inspection of 1915 brought out a strong protest against prison-made brushes. One firm claimed that on the cheaper grades of brushes the minimum wage requirements were only a secondary consideration, that of first importance being the prison competition. Another firm employing large numbers of persons has claimed, on the contrary, that the minimum wage requirements have been of great detriment to its business, causing it to refuse large orders and discharge many of its low-paid women employees. This establishment has, however, conformed to the decree in every respect.

Other employers brought out the failure of the European bristle supply during the war, a consequent cutting short of work, and the necessity of buying bristles in the Orient. Certain manufacturers stated that no effects whatsoever had been felt from the operation of the minimum wage law; others mentioned the dullness of business, but ascribed it to other causes. One employer spoke of the necessity of discharging a number of setters who were not able to earn the specified rates, and the discontinuance of that particular line of work; the employer referred to was, however, employing the same number of women in his factory as before the decree went into effect. Another employer, who stated the difficulty to be the problem of finding girls skilled enough to earn the high rates, was employing more women in his factory than before the rates went into effect.

In attempting to ascertain the effect of the establishment of minimum wage rates upon any industry two questions should be taken into consideration: (1) what are the surest indices of the prosperity of the business; and (2) are the effects indicated, whether showing prosperity or depression for the industry, the results of the operation of minimum wage determinations or of other factors in the industrial situation. The latter is of especial importance in a year like the present, when common opinion attributes to the Euro-

pean war the depression and unemployment in certain industries and the apparently abnormal expansion in others.

The value of the output and the number of employees are two of the indices of business conditions which operate with comparative quickness in showing changes in the industry, and are more significant in reflecting temporary fluctuations than the value of stock, rate of dividend or grade of credit.

"Statistics of Manufactures"¹ for the year 1913 contains the latest information published by the Massachusetts Bureau of Statistics concerning the value of the product, the value of the stock and materials used and similar items. Through the courtesy of the Director of the Bureau, however, advance information on the statistics of the industry for 1914 has been placed in the hands of the Commission, and a comparison of the status of the brush industry in 1913 and in 1914, after the application of the decree, is therefore afforded.

	1913. ²	1914. ³
Number of establishments,	27	30
Capital invested,	\$2,771,038	\$3,286,997
Value of stock and materials used,	\$2,059,146	\$2,232,684
Value of product,	\$3,740,615	\$3,914,029

The reinspections made by the agents of the Commission furnish a basis for conclusions as to changes in the numbers employed. For 16 of the 19 brush firms employing women numbers were available for both 1913, when the original inspection was made, and 1915, the year following the decree, when the third inspection was made. (One firm refused information concerning male employees in 1915, one was out of business in 1915, and one had not been inspected in 1913.) For these 16 firms the total number of women employed has increased from 332 to 334; the total number of minors employed has increased from 36 to 51; and the total number of men employed has decreased from 472 to 417.

¹ Bureau of Statistics, Twenty-eighth Annual Report on the Statistics of Manufactures, for the year 1913. Boston, 1914.

² Statistics of Manufactures for the Year 1913, p. 3.

³ Advance material furnished by the Bureau of Statistics.

It is obvious, therefore, that for this industry the establishment of minimum wages has not had the effect at times prophesied for it, namely, of throwing many women and minors out of work and encouraging instead the employment of men and the few skilled women. It is of course possible that if there were available the numbers employed by the firm which refused information concerning men the conclusions in this respect would be changed. In such an industry as the one under consideration, however, where the opposition to the principle of minimum wage is said to have influenced to some extent the policy of the firm referred to in employing labor, the effect upon the industry as a whole is the more significant aspect.

It will be seen from the figures quoted above that owing to the decrease in the number of men, the total number of all classes employed in these 16 establishments has decreased from 840 to 802. This conclusion is reinforced by the advance figures furnished by the Massachusetts Bureau of Statistics, which show that the average number employed decreased from 1,566¹ in 1913 to 1,435² in 1914. It is significant in this connection that the unemployment situation throughout the industries of the State has been almost an unprecedented one during the last twelve months, and that decrease in employment in this industry is therefore but an aspect of a general tendency. In discussing the percentage of unemployment for the quarter ending Dec. 31, 1914, the following statement is made by the Massachusetts Bureau of Statistics³ regarding unemployment in trade union membership: —

The present percentage is higher than any corresponding percentage reported since the Bureau began to collect statistics of this character at the close of March in 1908 when (immediately following the severest stress of the period of industrial depression which began in the fall of 1907) the percentage was 17.9.

¹ Statistics of Manufactures for 1913, p. 3.

² Advance material furnished by the Bureau of Statistics.

³ Bureau of Statistics, Twenty-eighth Quarterly Report on Unemployment in Massachusetts, quarter ending Dec. 31, 1914, p. 1.

Three months later the situation 'remained serious, although a slight improvement had set in. The Bureau of Statistics made the following statement at that time:¹ —

Although the present percentage is higher, with one exception, than any corresponding percentage reported for the close of March since the Bureau began to collect statistics of this character in 1908, it is less by nearly two points than the corresponding percentage for Dec. 31, 1914, notwithstanding the fact that the March percentage is usually higher than the next preceding December percentage. These returns, therefore, indicate an apparent improvement over conditions prevailing at the close of December last, and while large numbers had not actually returned to work at the end of March, and the percentage accordingly remained high, many of the reports were, nevertheless, decidedly optimistic in tone with reference to the immediate future, and in marked contrast with the rather disheartening reports received at the close of December, 1914.

At the end of June, 1915, the situation was still abnormal, although improvement was manifested.²

Although the present percentage (10.6) is high, as compared with the average percentage (6.9) for the close of June during the six-year period 1909-14, it very nearly approaches the corresponding percentage (9.9) for the close of June in 1914.

The allegation has sometimes been made that the comparatively slow growth of the industry has been due to the effects of the establishment of minimum wages. Whether or not the output could have been larger or the numbers employed greater, in view of the conflict in Europe, is the crux of the situation. The conclusions previously quoted from the reports of the Bureau of Statistics show industrial maladjustment to be general throughout the State. Nevertheless, the compliance of practically every employer with the decree and the large increases in the wages of female employees bear witness to the fundamentally healthy condition of this industry.

¹ Bureau of Statistics, Twenty-ninth Quarterly Report on Unemployment in Massachusetts, quarter ending Mar. 31, 1915, pp. 1, 2.

² Bureau of Statistics, Thirtieth Quarterly Report on Unemployment in Massachusetts, quarter ending June 30, 1915, p. 1.

In short, the effects of the brush decree upon the industry are found to be as follows: the decree has been complied with in practically every instance. The increases in wages have been large throughout the industry, and at the same time the capital invested in the industry and the value of the product have materially increased. The employment of women and minors has not given way to the employment of men, nor has the minimum wage tended to become the maximum.

WAGES OF WOMEN IN THE PAPER-BOX FACTORIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The rapid development of the paper-box industry during the past sixty years has paralleled the enormous increase in all manufactured products. The demand for paper boxes is secondary and measures the amount and variety of products which now go to the consumer in pasteboard containers. Recent reorganization of both wholesale and retail selling has accelerated the output. It has been found that the value of many articles is enhanced if they are displayed for sale or delivered to the consumer in boxes. This is true of commodities for which cleanliness is of especial importance, as with toilet accessories, since guaranteeing to the purchaser the "original package" gives him the satisfaction of feeling that the article he buys, whether toothbrush, handkerchief or absorbent cotton, has not been handled or soiled during its progress from the manufacturer to his own hands. It is also true where the article is more attractive or better preserved when boxed, as with soap, dentifrices and food products. In the growth of the candy trade, the increasing use of ready-to-wear garments and the prevalence of trade-marked goods are other instances of the expanding use of paper boxes, not only due to the growth of the industries themselves, but also in response to the changing tastes of the consumer. To the wholesaler and the jobber the boxed article means increased convenience in transportation and display, as in the case of such commodities as candy, dry

goods, hardware and stationery supplies. For these reasons the fortunes of the paper-box industry have come to be bound up with those of the industries which it supplements, and individual box factories come into existence according to the degree to which purchasers learn to prefer boxed goods.

Since 1849, the first year for which statistics of manufacture of fancy¹ and paper boxes were collected for the Federal Census, the industry has increased 12,443.1 per cent., rated by the value of the product, and the average number of wage earners employed has increased 5,403.3 per cent. Progress by decades has been irregular, as shown by the following tables:—

Manufacture of Fancy and Paper Boxes,² United States, 1849-1909.

YEAR.	Number of Establishments.	Wage Earners (Average Number).	Wages.	Cost of Materials.	Value of Products.	Value added by Manufacture.
1909, . . .	949	39,514	\$14,015,383	\$25,716,241	\$54,450,015	\$28,733,774
1904, . . .	796	32,082	10,207,827	16,685,826	36,866,589	20,180,763
1899, . . .	729	27,653	8,151,625	11,765,424	27,316,317	15,550,893
1889, . . .	588	18,949	5,827,099	7,893,941	18,805,330	10,911,389
1879, . . .	369	9,678	2,373,948	3,578,827	7,665,553	4,086,726
1869, . . .	249	4,632	1,258,652	1,592,976	4,029,659	2,436,683
1859, . . .	110	1,601	358,658	467,350	1,162,777	695,427
1849, . . .	82	718	139,764	187,796	434,104	246,308

¹ Neither the Federal Census nor the Massachusetts Statistics of Manufactures gives figures for the manufacture of paper boxes as distinct from "fancy" boxes. The following description of the classification used appears on pp. 433 and 434 of Volume VIII. of the thirteenth census: "The establishments in this classification manufacture a large variety of plain and metal-edged boxes, made of paper, newsboard or cardboard, for confectionery, millinery, small cigars, cigarettes, etc. Cartons, folding boxes, mailing cases, shipping drums, charlotte-russe boxes, holders and bonbon cups are among the articles reported. Although paper and wood pulp are the principal materials, the products also include lithographed, lacquered and plain tin boxes, tea caddies and canisters of tin, and fancy boxes of wood covered with cretonne, silk, tapestry and similar textiles."

² United States thirteenth census, Vol. VIII., p. 434.

Increase¹ in the Value of Product, Fancy and Paper Boxes, 1849–1909.

YEAR.	Value of Product.	Amount of Increase. ¹	Per Cent. of Increase.
1909,	\$54,450,015	\$27,133,698	99.3
1899,	27,316,317	8,510,987	45.3
1889,	18,805,330	11,139,777	145.3
1879,	7,665,553	3,635,894	90.2
1869,	4,029,659	2,866,882	246.6
1859,	1,162,777	728,673	167.9
1849,	434,104	—	—

The large increase in the number of workers employed has occurred in spite of the fact that the introduction of machinery during the past sixty years has characterized almost all forms of the industry. Although hand work is still used on certain types of high-grade boxes, by far the larger part of the output is now distinctly a machine product. At the same time, the census figures show that the number of employees has not increased so fast as the value of the product or the total amount of wages paid. The number of establishments, although it has grown from 82 to 949, shows relatively the smallest gain, demonstrating the fact that in this, as in many other industries, the size of the ordinary manufacturing plant has been steadily increasing.

According to the census statistics for 1909, Massachusetts takes third place in the fancy and paper box manufacture of the country, and has 10.6 per cent. of the value of the total product.² New York stands first and Illinois second. In 1913, according to the figures given in the Massachusetts Statistics of Manufactures,³ the State had 95 establishments, employing 4,295 workers, of whom 2,807 were women, with a capital of \$4,054,193 and an annual product valued at \$6,898,723. The following tables present an analysis of the place of Massachusetts in the fancy and paper box industry and a comparison of the State with other States:—

¹ Computed from Table 210, p. 434, Vol. VIII., thirteenth census.

² United States thirteenth census, Vol. VIII., pp. 660, 661.

³ Massachusetts Bureau of Statistics, Statistics of Manufactures, 1913, p. 2.

Statistics of Manufacture (Fancy and Paper Boxes).

	CENSUS RETURNS FOR 1909. ¹		Statistics of Manu- factures for 1913, Massachu- setts.
	United States.	Massachu- setts.	
1. Number of establishments,	949	99	95
2. Capital,	\$35,475,398	\$2,939,285	\$4,054,193
3. Value of products,	\$54,450,015	\$5,757,611	\$6,898,723
4. Value added by manufacture (product less cost of materials),	\$28,733,774	\$3,038,164	\$3,496,091
5. Cost of materials used, including fuel and rent of power,	\$25,716,241	\$2,719,447	\$3,402,632
6. Expense (rent, tax, contract, other),	\$4,789,129	\$458,813	- ²
7. Salaries,	\$3,708,595	\$350,887	- ²
8. Wages,	\$14,015,383	\$1,556,931	\$1,953,130
9. Total cost,	\$48,229,348	\$5,086,078	- ²
10. Value of product less total cost,	\$6,220,667	\$671,533	- ²
11. Employees:—			
Number of salaried officials and clerks,	3,239	295	- ²
Average number of wage earners employed during the year,	39,514	3,838	4,295
Male, 16 years of age and over, December 15, .	14,198	1,322	1,413 ³
Female, 16 years of age and over, December 15,	25,961	2,629	2,308 ³
Female, under 16 years of age, December 15, .	2,590	243	599 ⁴

¹ United States thirteenth census, Vol. VIII., pp. 513-521, 660, 661.² Not taken by the Massachusetts Bureau of Statistics.³ This is the number of employees, eighteen years of age and over, December 13.⁴ This is the number of employees under eighteen years of age, December 13.

Manufacture of Fancy and Paper Boxes by States.¹

STATE.	Number of Estab- lishments.	Number engaged in Industry.	Capital.	Value of Product.
California,	19	703	\$730,934	\$964,983
Connecticut,	38	2,074	2,337,205	2,910,697
District of Columbia,	3	99	43,811	68,300
Georgia,	8	367	659,082	1,139,935
Illinois,	61	4,509	3,813,498	6,349,621
Indiana,	13	609	623,775	781,558
Iowa,	6	145	95,811	127,704
Louisiana,	3	136	89,337	173,399
Maine,	10	308	251,773	303,778
Maryland,	17	770	733,288	852,753
Massachusetts,	99	4,209	2,939,285	5,757,611
Michigan,	19	1,427	1,895,567	2,653,416
Minnesota,	11	666	928,065	1,023,015
Missouri,	27	1,237	932,858	1,376,340
New Hampshire,	12	192	123,219	272,832
New Jersey,	46	2,321	1,931,595	2,674,539
New York,	315	12,702	8,072,393	14,233,672
North Carolina,	4	86	53,656	86,747
Ohio,	46	2,777	2,840,735	3,635,190
Pennsylvania,	118	5,050	3,421,711	5,183,847
Rhode Island,	9	542	326,967	499,419
Tennessee,	6	227	148,284	257,501
Texas,	3	87	221,751	114,103
Vermont,	3	42	21,400	42,000
Virginia,	10	605	337,008	412,684
Washington,	6	125	119,526	196,901
Wisconsin,	15	907	1,079,774	1,317,389
All other States, ²	22	646	703,090	1,040,081

¹ United States thirteenth census, Vol. VIII., pp. 660, 661.² All other States embrace: Alabama, 2 establishments; Colorado, 3; Delaware, 1; Kansas, 2; Kentucky, 2; Nebraska, 2; Oklahoma, 1; Oregon, 4; South Carolina, 1; Utah, 1; West Virginia, 3.

*Manufacture of Fancy and Paper Boxes in Massachusetts, 1909-13.*¹

Y E A R.	Estab-lish-ments.	Capital invested.	Value of Stock and Materials used.	Amount of Wages paid during the Year.	Average Yearly Earnings.	W A G E E A R N E R S E M P L O Y E D.					Value of Product.
						A V E R A G E N U M B E R.			Smallest Number.	Greatest Number.	
						Males.	Females.	Both Sexes.			
1909,	- 2	- 2	3,838	3,582	4,222	\$5,757,611	
1910,	\$112 65	1,348	2,658	4,006	3,430	4,712	5,954,129
1911,	417 83	1,431	2,749	4,180	3,557	4,784	6,281,142
1912,	440 69	1,419	2,767	4,186	3,577	4,828	6,710,376
1913,	454 75	1,488	2,807	4,295	3,809	4,826	6,898,723

¹ Massachusetts Bureau of Statistics, Statistics of Manufactures, 1909-13.² No figures given.

METHOD AND SCOPE OF THE INQUIRY.

The study of paper boxes by this Commission was made in the months of February, March and April, 1915. It is concerned with 24 establishments, situated in 15 cities and towns of the State. In these paper-box factories a transcript of the pay-roll records for each female employee was taken for a period covering the fifty-two weeks preceding the date of the initiation of the investigation. Only 4 of the 24 factories kept records of the number of hours worked by their female employees. In the case of each of these 4 factories the records of hours were also transcribed by the agents of the Commission. In as many cases as possible schedules were filled out by the women workers themselves, in order that the Commission might have available such information as age, marital condition, living arrangements and length of experience. In addition, an inspection of the premises was made for the purpose of studying the occupations. The results of the analysis of the schedule material will be found in the section entitled "Analysis of the Wage Situation."

In accordance with the duties of the Commission as prescribed by the statute, the inquiry has been limited to ascertaining wages and rates for the various occupations, with such other matters as are most intimately connected with that subject. This procedure necessitated the omission of many subjects which might have proved both interesting and valuable as matters of public knowledge in connection with the wage situation. For example, the matters of overtime, sanitation, accidents and more detailed information as to the living arrangements and expenses of the women employees have a definite bearing on the matter of wages in any given employment. Moreover, these matters are under the jurisdiction of other boards and commissions in this State, and certain information concerning them appears from those sources from time to time. Consequently, the material gathered by the Commission is limited in scope and comprises only the data which in the experience of the Commission have proved to be most pertinent and useful in the attempt to improve the wage situation.

THE PROCESS OF MANUFACTURE.

The operations involved in the manufacture of paper boxes depend largely upon the kind of box manufactured. In general, paper boxes may be classified as "folding" and "built-up" boxes. Examples of the former, which take their name from the fact that they are shipped in a flat or folded condition and set up by the user, are butter, egg and ice-cream cartons, and patent medicine, tooth brush and paste-tube containers. Built-up boxes are shipped ready for use. The simplest variety is the "set-up" box, which is an unlined, untrimmed container, merely glued or stayed at the corners, and used chiefly for packing and shipping smaller boxes and other light-weight articles. The more elaborate boxes may be covered, lined, "necked" — that is, fitted with a neck or shoulder so that the cover may lie flush with the sides of the box — and decorated with paper lace, ribbon and pictures. Candy, soap, jewelry and shoe boxes are examples of the more complicated boxes.

The preliminary box-making processes, *cutting* and *scoring*, are machine operations and are usually performed by men. The operator of the scoring machine feeds sheets of pasteboard into the machine, which cuts them into the proper size and cuts or creases the lines along which the box is to be bent into form. A corner-cutting machine then cuts out the corners, in preparation for turning down the sides and ends of the boxes. When folding boxes are manufactured these processes are all performed by a large die cutting and creasing machine, which cuts out and creases the entire box form in one piece. In many cases trade names, designs and description of contents of folding boxes are printed on the pasteboard prior to cutting and creasing. In this printing department of the preliminary work women are occasionally employed as cylinder press feeders. Their work is performed standing on high platforms and consists in lifting the uncut sheets of cardboard and feeding them into the presses.

Staying. — The work of staying is done by both hand and machine. The latter is accomplished in two ways, — by a one-corner stay machine and by a quadruple stayer.

One-corner staying requires a separate operation to secure each corner. The machine has a projecting anvil over which is placed successively each of the two edges which are to form the corner of the box. The motion of the machine, controlled by foot, is the rapid descent of the head which drops with varying amounts of pressure, depending upon the thickness of the board used. This head carries either gummed tape or wire rivets, according to the style of the machine, and the corners are secured by the application of these. The one-corner stayer is the most dangerous machine in the industry unless effective guards are used. The styles of guards which have been most frequently used have been removable at the option of the operator and, being a hindrance to speed, usually were discarded. Newer guards, such as the split link and permanent side guards, are being used with entire effectiveness.

The quadruple stayer does in one process what the one-corner stay machine does in four. There are two types of the machine. One of them takes a single sheet of cardboard after it has been cornered, and in one operation turns up the sides and ends of the box and glues a gummed tape over each of the four corners. This is called the auto box machine. The other type, or double ender, puts the ends on a single piece which forms the bottom and sides and secures them in one operation.

In hand staying the gummed tape is applied by hand to the corners of the box as the edges to form the corner are held over a form.

Machine Covering. — When a box or box lid is entirely covered by paper it is generally done by machine. Some boxes are "loose-wrapped," in which case the paper is glued only on the edge which is turned down on the inside of the box. Others have the surface of the paper entirely glued and are called "tight-wrapped."

In the latter case the paper is first passed through a gluing machine. This machine has a double set of rollers, the lower pair revolving in a fount of glue. The operator, called a gluer-off, passes the paper through the rollers where it receives a film of glue, and places it on a revolving table from

which it is taken when needed by the operator of the covering machine.

The box to be covered is then registered at the proper place on the paper and put on a form with the paper sticking to the bottom. The machine is started by a foot treadle, and in one operation the box is lowered into a well and is completely covered and raised again, at which time it is replaced with another by the operator.

Hand Covering. — On high-grade fancy boxes, such as candy and jewelry boxes, covering is done by hand. In this case the operator may herself apply the glue to the paper with which she covers the boxes, or glued papers may be delivered to her on a moving belt, which in turn is fed by a girl whose work is like that of the gluers-off previously described. This operation and other hand processes not otherwise specified on hand-made boxes are called *bench work* in the statistical tables which follow.

Stripping. — If a box is not to be completely covered with paper or hand covered it is stripped, that is, papered along the ends and sides. The operator places the box on a revolving form which may be turned by hand as the box is stripped, or which may be controlled by machinery. In either case the box is revolved and the paper passed about it and cut from the long strip by the lowering of a knife. The strip of paper first passes over a cylinder revolving in glue. To give additional strength to the box, or as a trimming, a plain or gilt tape is sometimes run parallel to the covering strip and applied to the top or bottom of the box, either completely under the covering, or, in the case of the gilt tape, adjusted to show at the edge.

Turning in. — As the box comes from the stripper the edges of the paper protrude beyond the top and bottom of the box. The paper is then turned over the top of the box and along the bottom by the operator herself or by a helper, who is called a turner-in. The helper also piles the finished boxes and removes them to the place where they are to be inspected and closed.

Topping. — Lids for boxes which have been stripped have the top paper put on by a similar process. The operator ad-

justs the paper as it comes from the machine to the top of the box, lowers a lever which drops a knife, and as it cuts off the paper she smooths it out with her hand so that it will adhere to the cardboard.

Lacing. — The lace paper with which fancy boxes and box trays are trimmed is attached by both hand and machine processes. Hand lacing is usually done by girls in pairs, one applying the glue to the lace, and the other attaching it to the box.

In machine lacing the lace is automatically glued by an oscillating brush which passes over it as it rests on a projecting front of the machine. The box is fitted over the lace and pressure applied to secure it.

Closing and Inspecting. — The floor work is done by women called closers and inspectors. In the examination imperfect boxes are discarded, plain boxes are closed and fancy boxes made ready for shipment. If a box has lace on it this is turned in before the lid is put on; if the box is one containing trays, these are inserted before closing. In some factories, where better-grade boxes are made, the closers and inspectors pack them in rough cartons; otherwise they are set aside and removed by men for shipment.

Labeling. — In the case of some special large orders of boxes the name of the contents, form, trade-mark, stock number or other necessary information may be printed on the paper before the box is covered. Where a standard box size is manufactured to sell for a variety of uses, a label is usually applied after the box has been closed. The experienced worker glues and pastes labels with great dexterity and accuracy, sometimes adjusting a glued label to each of her fingers and thumb of one hand, and with a quick movement of the other affixing them to the boxes.

Machine Folding. — Certain types of folding boxes of simple construction are completely made in one operation by a high-speed automatic machine. This machine is usually fed by men. It spreads a film of glue over the edges along which the box is to be glued, and presses it against the side to secure it. The boxes are delivered from the machine finished, in automatically counted piles of 50 or 100. Other

folding boxes, such as ice-cream and 'small butter and egg cartons, are caught and glued at the edges by machine or by hand.

Hand Folding. — In general, the hand operations on folding boxes require less skill than the hand processes on built-up boxes. The work consists in creasing the boxes along the lines indicated, and with glue or tape securing them into completed boxes. The gluing is often facilitated by running the boxes through rollers, behind which they drop into large baskets removed and emptied by helpers.

Helping. — Supplementary to the principal operations of box-making as they have been described are various others, ranging from unskilled general work, called helping, to special processes on highly specialized types of boxes. When a girl first enters the industry she is ordinarily started to work as a helper. Her occupation may be catching and tying folding boxes; she may be assigned to a one-corner stay machine to turn down the sides and ends before the cardboard is passed to the operator; or she may carry materials from one group of operators to another and perform various kinds of general work.

Miscellaneous. — Other occupations, involving relatively small numbers of persons, may be described briefly as follows: —

Lapping and joining is gluing two edges together, for any one of a number of purposes. One of the most usual lapping processes is gluing cardboard for making necks. After the cardboard is lapped and cut in strips these are pasted in boxes by a process known as necking.

Filling is the insertion of set-up racks and cardboard or corrugated fillings in egg cartons and boxes used for containers for bottled goods and other breakable articles.

Thumbing is the process of cutting out a half circle on either side of a box lid in order that the box may be held by a thumb and a finger when the lid is being removed.

Looping is pasting small tapes at the sides or ends of trays for boxes, so that the tray may be more easily removed.

Tape handling is gluing or tying tape handles to ice-cream cartons.

Reinforcing is pasting gummed strips around the edges of the box for strengthening purposes.

Ending is pasting ends into boxes where the waste of stock by cutting boxes from one piece of board would be great.

Doming is forcing up the tops of box lids into a convex shape.

ACCIDENT HAZARD.

The Commission has made no special study of the accident and health hazard in paper-box factories, for reasons detailed elsewhere in this report. At the same time, a brief summary of the present state of affairs in this respect, as reported by the Industrial Accident Board of this State, is necessary for a thorough understanding of the circumstances surrounding women employees in paper-box factories.

The principal dangers to which employees in paper-box factories are subject are connected with machinery peculiar to the industry, particularly the older type of poorly guarded staying machine which is elsewhere described. According to the summaries presented in the first annual report of the Industrial Accident Board of Massachusetts,¹ covering the period from July 1, 1912, to June 30, 1913, inclusive, 266 nonfatal accidents and no fatal accidents among paper-box workers were reported to the Board during that year. The percentage of accidents reported to the number of employees in the industry was 6.3. Men and women employees are not distinguished in the classification which follows:—

CAUSE.	Number of Accidents.
Animals, insects, etc.,	2
Belting:—	
Shifting by stick or hand, etc.,	1
Burns:—	
Fire,	2
Hot objects,	3
Steam, hot liquids, etc.,	3
Electricity:—	
Shocks,	1
Other generator and motor accidents,	1

¹ First Annual Report of the Industrial Accident Board, 1914, pp. 245-336.

CAUSE.	Number of Accidents.
Elevators: —	
Caught between car and shaft,	2
Falling down shaft (person),	1
Miscellaneous,	2
Eye injuries: —	
Emery wheels,	1
Falling material from overhead,	1
Falls: —	
Over obstructions,	2
From or with portable ladders,	1
Slipping on floor level,	1
Down stairways,	3
Miscellaneous,	2
Gears,	3
Glass: —	
Windows,	1
Hand labor: —	
Caught by material,	11
Slivers, sharp edges, corners, etc.,	21
Strains from lifting, etc.,	2
Struck by tools,	3
Illness,	1
Infection from trivial cuts, burns, etc.,	2
Miscellaneous (unclassified),	7
Nails: —	
On barrels, boxes or objects,	4
On floor or ground,	3
Playing and fooling,	1
Presses: —	
Printing,	8
Punch and drop and miscellaneous presses,	9
Saws,	5
Shafting, setting screws, couplings, etc.,	2
Vehicles: —	
Animal-drawn,	4
Trucks, wheelbarrows, etc.,	1
Accidents caused by machinery peculiar to special industries,	148
Occupational diseases: —	
Miscellaneous,	1
Total,	266

The report affords certain additional information concerning the injured persons. One hundred and fifteen, or 43.2 per cent., of the persons injured were women, and the majority of the persons injured were less than thirty years of age. One hundred and sixty-six of the 266 persons injured

were disabled for less than two weeks. With regard to the nature of the disability, whether temporary or permanent, the largest number were classified as "temporary total."

METHOD OF TREATING WAGE MATERIAL.

In the preparation of the material for tabulation all records of persons who appeared on the pay roll for less than four weeks out of the fifty-two under consideration were thrown out. This was done in order that the conclusions reached might apply only to workers who could legitimately be considered a part of the normal working force of the industry. In some factories it is the custom to employ helpers or "strikers," young girls, usually between the ages of fourteen and eighteen, who assist machine operators. In cases in which the earnings of strikers were included in the weekly payments made to the operators, it was necessary to exclude the wage records from the tabulation, as it was impossible to ascertain the exact amount earned by the individuals concerned. One factory had the custom of paying wages in 48 instead of 52 payments during the year. This made the amounts incomparable with those of other factories, and they were consequently omitted from tabulation. Records for forewomen and clerical workers were also excluded.

In computing weekly earnings and hours worked each week for individual workers, the procedure for each individual was as follows: the sum of all payments made during the fifty-two week period — that is, the girl's total income from her work for the year — was found. This sum was divided by the number of weeks during which she was actually at work, as indicated by the number of weekly payments made to her. When the weekly payment was for a paid vacation, the vacation week was counted as a week actually worked. In this way her average weekly earnings for the time she was at work in the occupation under consideration were ascertained. A corresponding procedure was adopted in treating hours of work. The number of hours worked during the fifty-two week period was totaled, and this sum divided by the number of weeks actually at work, as indicated by the number of weekly payments made. The amounts paid were not always

the equivalent of a full week's work. The factory or department may have been running on short time, girls may have entered or left the factory in the middle of a week, or absences may have occurred because of illness or other individual reasons. This necessitates a slight misrepresentation in the analysis of earnings, which could be avoided only where a record of hours was kept in the factory, and even then it was not possible to ascertain to which of the above causes the short time should be ascribed. The Commission has made it a rule to follow the written record, and has attempted to present the pay-roll figures as found, without omissions or additions due to interpretations of its own.

ANALYSIS OF THE WAGE SITUATION.

The total number of women in the box-making industry for whom wage records are available for analysis is 2,178. The following tables show the amount of their earnings by classified wage groups and in connection with other factors according to which they vary, such as occupation, establishment, hours of work and the age and experience of the worker.

Table 1, (a) and (b), shows the total number of these workers classified according to their earnings. The number who earned an average of less than \$6 a week during the time when they were actually at work is 970, or 44.5 per cent. of the total. Three hundred and fifty of these employees, or 16.1 per cent., earned less than \$4 a week, and three-fourths (75.7 per cent.) earned less than \$8 a week.

The lowest paid occupations, graded according to the percentage of workers who received less than \$6 a week, are gluing off, helping, hand folding and turning in. Gluing off is a simple operation requiring little skill; turning in is practically a "helping" operation connected with stripping; hand folding is unskilled work; and helping may be one of several kinds of general or errand work through which most workers gain an introduction to the trade.

Staying, labeling, bench work, stripping and machine covering are the highest paid occupations, according to the percentages of workers who earned \$8 a week or more. All of

these operations require speed, skill and experience, at least before any high rate of output can be attained.

The weekly rates at which the workers were scheduled to be paid are shown in Table 2. Piece workers were necessarily excluded from this table, as well as all time workers whose rates were not available, so that the table shows rates for only 466 of the 2,178 persons whose wages were studied. Two points shown in this table are of especial importance: (1), the wider difference among occupations as regards rates, hand folding being the lowest and staying the highest, and (2), the large percentage (54.9) scheduled to receive less than \$6, as compared with 44.5 per cent. (Table 1 (a)) who actually received less than \$6. This is probably to be accounted for by the fact that many of the high-paid workers — for example, bench workers — who were largely on piece work could not be included in the rate table, and this table therefore represents mainly low-paid time workers.

Table 3 shows total earnings for the year for the same group of workers. Table 1 takes into account only the weeks when each girl was actually on the pay roll, and gives no indication of the time when she was not in the factory, — a period, possibly, of actual unemployment, which the earnings of the previous weeks must be stretched to cover. Table 3 gives the amounts which mean total yearly incomes to many workers, unless they belong to the group of those who live at home and draw on the wages of others in the family for their living expenses, or to the group which supplements the incomes described in the table by work in other box factories or in other occupations. Of this latter class there is possibly a large number, but no reliable information exists as to the actual extent of such supplementary employment, and such opinions as have been expressed to the Commission have been derived from sources admittedly partial in character.

According to Table 3, 31.1 per cent. of the workers received less than \$100 in the course of the year, and more than one-half (53.7 per cent.). earned less than \$250. The occupations which bring in the lowest annual earnings, graded by the percentage of workers who received less than

\$100 in the course of the year, are hand folding (68.3 per cent.), helping (56.1 per cent.), turning in (45.8 per cent.) and closing and inspecting (42.3 per cent.). The low annual earnings of workers in these occupations are to be accounted for by two facts,—the low weekly earnings in the same work, which of necessity mean low annual incomes, and the fact that it is in these occupations that the greatest amount of changing, leaving or beginning work, and moving from factory to factory, occurs. Labeling, bench work, topping and staying are the occupations in which the highest annual earnings were obtained, graded according to the proportion who earned \$400 or more during the year.

Weekly wages differ conspicuously in different establishments. Table 4 shows that in three of the factories studied more than one-half of the women employed were paid less than \$5 a week, while in two other factories not a single woman averaged less than that amount. In one establishment no girl averaged as much as \$8 a week. The different levels of wages in the various factories appear to bear very little relation to the localities in which the factories are found, to the nationality of the workers, or to the character of the product (with the one exception of wages in factories manufacturing shoe boxes, which in several instances were higher than the majority). The fact that establishments situated in practically the same locality and depending upon the same sources of labor supply are shown to pay widely differing scales of wages demonstrates the slight basis upon which the ordinary competition arguments rest. The analysis of rates of payment in Table 5 has the same bearing.

The number of hours worked each week must be taken into consideration in discussing the weekly earnings in the industry. If it were possible to ascertain the number of hours worked each week by each of the 2,178 workers studied, the figures representing wages for this number of workers could be made much more significant. Unfortunately, it is the custom in very few factories to keep records of the number of hours, and such records could therefore be obtained for only 282 of the 2,178 women employees whose wage records are analyzed.

This material regarding hours, which in Table 6 is correlated with earnings, demonstrates the normal relationship between length of time worked and amount of wages. A majority of the women averaged from forty-two to fifty hours' work a week. Table 7 shows the variation of working time in different establishments.

Table 8 shows the fluctuation of employment for all of the factories studied and among the various occupations. The figures demonstrate the extent of the flux among the working force, as a whole, and the greater instability among the comparatively unskilled and low-paid occupations. On the other hand, topping, labeling and stripping show the largest number of workers who remain at their occupations for the entire fifty-two weeks of the year. A fact previously mentioned should be noted throughout the entire discussion of the fluctuation of employment, namely, that the figures presented do not purport to portray the extent of unemployment for the industry as a whole, but merely to give a summary of the pay rolls of the 24 factories studied. It is important to note in Table 9 that similar differences exist among the various establishments, a fact not easy to account for, since the variations are apparently not related to the level of wages paid or to the character of the product.

Diagram I. shows the percentage of the total number of employees studied who appeared on the books each week in the year. Although the working period for individuals tends to vary greatly in duration, the diagram shows that from the point of view of the industry the working force does not show variation to an extreme degree. The busiest season occurs in the spring, and the dull in August, the vacation month, and midwinter.

Table 10, (a) and (b), analyzes the amounts earned each week in connection with the ages of the workers as given by themselves, and shows the tendency for wages in fairly skilled occupations to vary directly with age, until middle life is passed. Another aspect of the same situation is shown in Table 11, where earnings are found to vary directly with years of experience in the trade, up to six or seven years, after

which the increases in earnings with 'added experience cease to be proportionate.

It has been assumed in current discussions of minimum wages that the cost of living varies with the nature of living arrangements. A table is here presented (Table 12) which shows the living arrangements of 893 women engaged in box making. Eighty-four and one-tenth per cent. of these women workers live at home. Among the lowest paid girls the percentage at home is very large (96.5 per cent. of those who earned less than \$4 a week were at home), and decreases to approximately four-fifths (77.8 per cent.) with those who earn \$9 or more. A smaller percentage of girls earning less than \$4 appears to live at home, doubtless because of the fact that in the lower wage groups the figures are too small to justify exact conclusions. Table 13 shows that the younger workers live at home in much larger proportions than the older workers.

SUMMARY OF ANALYSIS.

A summary of the results of the investigation into the wages of women in the paper-box industry in this State shows that 44.5 per cent. earned less than \$6 a week, and that nearly one-third earned less than \$100 in the course of the year. A majority averaged between forty-two and fifty hours' work a week, and only a small proportion worked for as much as eleven months of the year. The larger number are girls less than twenty-five years of age who live with parents or relatives.

TABLE 1 (a). — *Average Weekly Earnings: by Occupations.*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —																	
	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		TOTAL.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Bench work,	4	.6	43	6.4	87	13.0	115	17.2	120	18.0	87	13.0	70	10.5	142	21.3	668	100
Stripping,	5	1.9	6	2.3	14	5.3	31	11.8	53	20.2	72	27.4	38	14.4	44	16.7	263	100
Helping,	25	10.9	99	43.0	60	26.1	25	10.9	9	3.9	8	3.5	4	1.7	—	—	230	100
Closing and inspecting,	12	8.7	27	19.7	23	16.8	16	11.7	18	13.1	16	11.7	6	4.4	19	13.9	137	100
Machine covering,	1	.9	2	1.8	9	8.1	14	12.6	20	18.0	31	28.0	18	16.2	16	14.4	111	100
Labeling,	—	—	5	4.8	10	9.5	10	9.5	14	13.4	25	23.8	23	21.9	18	17.1	105	100
Staying,	1	1.2	1	1.2	3	3.7	8	9.9	20	24.7	14	17.3	17	21.0	17	21.0	81	100
Gluing off,	1	1.2	10	12.5	37	46.3	25	31.3	3	3.7	4	5.0	—	—	—	—	80	100
Topping,	3	4.4	5	7.3	3	4.4	9	13.0	17	24.6	11	15.9	9	13.0	12	17.4	69	100
Hand folding,	12	19.0	17	27.0	15	23.8	8	12.7	7	11.1	4	6.4	—	—	—	—	63	100
Turning in,	2	8.3	3	12.5	5	20.8	8	33.4	5	20.8	1	4.2	—	—	—	—	24	100
Lacing,	—	—	3	23.1	—	—	1	7.7	2	15.4	4	30.7	3	23.1	—	—	13	100
Miscellaneous,	33	9.9	30	9.0	42	12.6	42	12.6	58	17.3	56	16.7	24	7.2	49	14.7	334	100
Total,	99	4.6	251	11.5	308	14.1	312	14.3	346	15.9	333	15.3	212	9.7	317	14.6	2,178	100

TABLE 1 (b). — *Average Weekly Earnings; by Occupations (Cumulative).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —									
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.		
Bench work, . . . . .	.6	7.0	20.1	37.3	55.2	68.3	78.7	21.3		
Stripping,	1.9	4.2	9.5	21.3	41.4	68.8	83.3	16.7		
Helping,	10.9	53.9	80.0	90.9	94.8	98.3	100.0	—		
Closing and inspecting,	8.7	28.5	45.3	56.9	70.1	81.8	86.1	13.9		
Machine covering, . . . . .	.9	2.7	10.8	23.4	41.4	69.4	85.6	14.4		
Labeling,	—	4.8	14.3	23.8	37.1	61.0	82.9	17.1		
Staying,	1.2	2.5	6.2	16.0	40.7	58.0	79.0	21.0		
Gluing off,	1.2	13.8	60.0	91.3	95.0	100.0	100.0	—		
Topping,	4.4	11.6	15.9	29.0	53.6	69.6	82.6	17.4		
Hand folding,	19.0	46.0	69.8	82.5	93.7	100.0	100.0	—		
Turning in,	8.3	20.8	41.7	75.0	95.8	100.0	100.0	—		
Lacing,	—	23.1	23.1	30.8	46.2	76.9	100.0	—		
Miscellaneous,	9.9	18.9	31.4	44.0	61.4	78.1	85.3	14.7		
Total,	4.6	16.1	30.2	44.5	60.4	75.7	85.4	14.6		

TABLE 2. — *Weekly Rates: by Occupations.*

NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —																		
OCCUPATIONS.	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		TOTAL.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Bench work,	—	—	—	—	6	5.9	34	33.7	10	9.9	14	13.9	7	6.9	30	29.7	101	100
Stripping,	—	—	—	—	—	—	3	25.0	1	8.3	1	8.3	2	16.7	5	41.7	12	100
Helping,	—	—	12	7.4	84	51.6	45	27.6	16	9.8	3	1.8	3	1.8	—	—	163	100
Closing and inspecting,	—	—	—	—	6	16.2	1	2.7	1	2.7	6	16.2	8	21.6	15	40.6	37	100
Machine covering,	—	—	—	—	2	28.6	1	14.3	1	14.3	2	28.6	1	14.3	—	—	7	100
Labeling,	—	—	—	—	2	28.5	1	14.3	3	42.9	—	—	—	1	14.3	—	7	100
Staying,	—	—	—	—	—	—	—	—	—	—	4	28.6	3	21.4	7	50.0	14	100
Gluing off,	—	—	—	—	2	10.0	14	70.0	4	20.0	—	—	—	—	—	—	20	100
Topping,	—	—	—	—	7	77.8	1	11.1	—	—	1	11.1	—	—	—	—	9	100
Hand folding,	—	—	1	33.3	2	66.7	—	—	—	—	—	—	—	—	—	—	3	100
Turning in,	—	—	—	—	—	—	1	20.0	4	80.0	—	—	—	—	—	—	5	100
Miscellaneous,	—	—	4	4.5	7	8.0	20	22.7	11	12.5	17	19.3	15	17.1	14	15.9	88	100
Total,	—	—	17	3.7	118	25.3	121	26.0	51	10.9	48	10.3	40	8.6	71	15.2	466	100

NOTE. — Of the 2,178 persons whose records were studied, data concerning rates were not available for 1,712, a majority of whom were piece workers.

TABLE 3. — *Annual Earnings: by Occupations.*

OCCUPATIONS.	NUMBER OF WORKERS WITH ANNUAL EARNINGS OF —										Total.
	Under \$100.	\$100 and under \$150.	\$150 and under \$200.	\$200 and under \$250.	\$250 and under \$300.	\$300 and under \$350.	\$350 and under \$400.	\$400 and under \$450.	\$450 and under \$500.	\$500 and over.	
Bench work,	186	62	34	44	57	66	54	53	35	77	668
Stripping,	39	13	19	23	26	37	48	32	13	13	263
Helping,	129	40	25	19	5	4	6	2	—	—	230
Closing and inspecting,	58	10	11	8	8	12	11	4	7	8	137
Machine covering,	18	10	7	7	8	14	19	16	9	3	111
Labeling,	10	7	4	8	12	11	19	12	14	8	105
Staying,	11	9	8	4	7	11	10	12	2	7	81
Gluing off,	33	15	7	10	9	3	2	1	—	—	80
Topping,	16	1	4	3	10	11	6	10	5	3	69
Hand folding,	43	9	3	1	3	4	—	—	—	—	63
Turning in,	11	1	4	2	—	6	—	—	—	—	24
Lacing,	3	—	—	1	3	3	3	—	—	—	13
Miscellaneous,	120	24	18	18	33	34	30	20	16	21	334
Total,	677	201	144	148	181	216	203	162	101	140	2,178

TABLE 4. — *Average Weekly Earnings: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1, . . . . .	.3	1.5	7.9	16.4	33.9	54.4	64.9	35.1
No. 2,	27.7	51.1	67.0	80.9	89.4	99.5	100.0	—
No. 3,	—	10.3	34.1	53.0	69.7	80.0	89.2	10.8
No. 4,	4.4	36.1	50.8	62.8	73.8	88.0	95.6	4.4
No. 5,	2.7	15.1	27.4	32.2	37.0	56.2	65.8	34.2
No. 6,	2.1	18.6	37.1	49.3	72.1	85.0	91.4	8.6
No. 7, . . . . .	.8	16.4	46.1	53.1	64.1	72.7	86.7	13.3
No. 8,	2.4	13.5	33.3	54.0	70.6	86.5	98.4	1.6
No. 9,	—	2.0	10.2	35.7	63.3	80.6	94.9	5.1
No. 10,	19.8	44.2	58.1	76.7	86.0	95.3	98.8	1.2
No. 11,	—	1.2	26.7	51.2	66.3	80.2	89.5	10.5
No. 12,	5.9	7.4	10.3	13.2	29.4	51.5	70.6	29.4
No. 13,	—	1.6	4.9	27.9	55.7	68.9	82.0	18.0
No. 14,	2.1	29.8	44.7	57.4	80.9	89.4	100.0	—
No. 15,	2.2	10.9	28.3	54.3	78.3	93.5	100.0	—
No. 16,	5.4	18.9	32.4	67.6	89.2	100.0	100.0	—
No. 17,	2.8	5.6	5.6	13.9	33.3	77.8	86.1	13.9
No. 18,	—	3.0	12.1	36.4	60.6	75.8	81.8	18.2
No. 19,	3.6	7.1	10.7	28.6	42.9	60.7	78.6	21.4
No. 20,	—	—	—	7.4	18.5	44.4	74.1	25.9
No. 21,	—	—	3.7	14.8	22.2	44.4	63.0	37.0
No. 22,	—	—	—	3.8	34.6	53.8	80.8	19.2
No. 23,	—	—	23.5	41.2	76.5	82.4	94.1	5.9
No. 24,	—	—	17.6	58.8	64.7	76.5	88.2	11.8
Total,	4.6	16.1	30.2	44.5	60.4	75.7	85.4	14.6

TABLE 5. — *Weekly Rates: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS WITH WEEKLY RATES OF —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	—	—	—	4.8	7.9	28.6	49.2	50.8
No. 2,	—	11.1	66.7	66.7	77.8	83.3	100.0	—
No. 3,	—	—	—	64.8	79.6	85.2	92.6	7.4
No. 4,	—	1.0	64.7	74.5	85.3	90.2	93.1	6.9
No. 5,	—	10.7	35.7	62.5	71.4	73.2	78.6	21.4
No. 7,	—	—	20.0	81.3	92.0	94.7	97.3	2.7
No. 9,	—	—	8.8	23.5	55.9	73.5	91.2	8.8
No. 10,	—	38.1	47.6	61.9	76.2	90.5	95.2	4.8
No. 12,	—	—	—	—	—	—	—	100.0
No. 13,	—	—	—	—	—	57.1	85.7	14.3
No. 14,	—	—	47.1	70.6	70.6	100.0	100.0	—
No. 18,	—	—	8.3	8.3	16.7	58.3	83.3	16.7
No. 19,	—	—	—	—	—	—	—	100.0
Total,	—	3.6	29.0	54.9	65.9	76.2	84.8	15.2

NOTE. — Data concerning rates were not available in Establishments Nos. 6, 8, 11, 15, 16, 17, 20, 21, 22, 23, 24.

TABLE 6. — *Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 30,	2	—	—	1	—	—	—	—	3
30 and less than 34,	3	1	—	—	—	—	—	—	4
34 and less than 38,	2	12	1	1	—	1	—	—	17
38 and less than 42,	4	5	11	6	—	5	1	1	33
42 and less than 46,	1	8	21	17	10	8	7	4	76
46 and less than 50,	2	4	16	21	22	12	9	15	101
50 and less than 54,	—	—	3	11	13	8	9	3	47
54 and over,	—	—	—	1	—	—	—	—	1
Total,	14	30	52	58	45	34	26	23	282

NOTE. — Data concerning hours were not available for 1,896 workers.

TABLE 7. — *Hours of Labor: by Establishments (Cumulative).*

ESTABLISHMENTS.	PER CENT. OF WORKERS WORKING —							
	Less than 30 Hours.	Less than 34 Hours.	Less than 38 Hours.	Less than 42 Hours.	Less than 46 Hours.	Less than 50 Hours.	Less than 54 Hours.	54 Hours and over.
No. 2,	6.3	15.6	28.1	46.9	65.6	84.4	100.0	—
No. 3, . . . .	.5	1.1	8.1	21.1	53.0	90.8	100.0	—
No. 9,	—	—	—	4.2	18.8	52.1	97.9	2.1
No. 24,	—	—	—	5.9	29.4	82.4	100.0	—
Total,	1.1	2.5	8.5	20.2	47.2	83.0	99.6	.4

NOTE. — Data concerning hours were not available in 20 establishments.

TABLE 8. — *Fluctuation of Employment among 2,178 Workers: by Occupations.*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
Bench work,	3.3	39.2	47.9	52.4	55.1	59.0	63.0	65.9	73.7	79.8	87.3	100
Stripping,	12.2	46.4	58.9	65.4	69.2	74.5	78.3	81.0	84.4	88.2	93.5	100
Helping,	5.7	17.0	21.7	24.3	27.8	33.9	39.6	44.8	56.5	66.5	74.3	100
Closing and inspecting,	5.8	29.2	37.2	41.6	46.0	50.4	54.0	57.7	66.4	73.0	81.8	100
Machine covering,	3.6	53.2	60.4	62.2	63.1	70.3	75.7	81.1	86.5	90.1	95.4	100
Labeling,	16.2	53.3	68.6	73.3	77.1	81.0	84.8	86.7	90.5	93.3	98.1	100
Staying,	7.4	43.2	51.9	56.8	60.5	65.4	67.9	72.8	82.7	86.4	92.6	100
Gluing off,	5.0	28.8	36.3	36.3	36.3	42.5	46.3	53.8	63.8	75.0	82.5	100
Topping,	20.3	53.6	63.8	66.7	71.0	73.9	75.4	76.8	78.3	84.1	88.4	100
Hand folding,	4.8	12.7	12.7	14.3	17.5	20.6	22.2	27.0	34.9	42.9	54.0	100
Turning in,	4.2	37.5	37.5	45.8	50.0	50.0	50.0	54.2	62.5	75.0	100.0	100
Lacing,	—	30.8	46.2	46.2	61.5	76.9	76.9	76.9	76.9	76.9	92.3	100
Miscellaneous,	7.5	34.7	44.9	49.7	52.7	56.9	58.1	63.8	70.4	76.6	84.7	100
Total,	6.8	37.2	46.1	50.2	53.4	58.0	61.5	65.4	72.5	78.7	86.1	100

TABLE 9. — *Fluctuation of Employment among 2,178 Workers; by Establishments.*

ESTABLISHMENTS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
No. 1.	1.5	52.6	63.2	69.9	73.1	76.6	81.3	83.9	88.9	91.5	95.6	100
No. 2.	6.4	15.4	20.2	22.9	25.5	28.7	31.9	36.7	48.4	56.9	71.8	100
No. 3.	—	29.7	34.6	37.3	41.6	44.9	45.4	48.6	58.4	64.3	76.8	100
No. 4.	7.1	33.3	45.4	48.1	51.9	60.7	65.6	69.9	74.9	80.3	87.4	100
No. 5.	7.5	61.6	64.4	69.9	74.0	77.4	79.5	81.5	84.9	87.7	90.4	100
No. 6.	—	32.1	40.0	42.1	45.0	55.0	61.4	64.3	76.4	80.0	87.1	100
No. 7.	13.3	35.2	42.2	48.4	51.6	54.7	58.6	68.0	74.2	78.1	83.6	100
No. 8.	10.3	30.2	34.1	37.3	39.7	46.8	50.0	57.1	68.3	74.6	81.7	100
No. 9.	7.1	41.8	53.1	56.1	57.1	59.2	61.2	64.3	71.4	84.7	89.8	100
No. 10.	1.2	20.9	25.6	26.7	27.9	30.2	34.9	37.2	45.3	60.5	70.9	100
No. 11.	1.2	26.7	41.9	43.0	46.5	48.8	51.2	55.8	62.8	75.6	82.6	100
No. 12.	27.9	44.1	52.9	61.8	64.7	69.1	73.0	77.9	77.9	80.9	89.7	100
No. 13.	32.8	60.7	62.3	67.2	67.2	72.1	73.8	75.4	82.0	86.9	91.8	100
No. 14.	—	17.0	27.7	31.9	36.2	48.9	53.2	57.4	70.2	85.1	87.2	100
No. 15.	—	2.2	10.9	17.4	21.7	23.9	23.9	34.8	43.5	50.0	65.2	100
No. 16.	—	40.5	70.3	73.0	75.7	78.4	81.1	83.8	83.8	86.5	97.3	100
No. 17.	11.1	61.1	83.3	86.1	88.9	94.4	97.2	97.2	97.2	100.0	100.0	100
No. 18.	15.2	48.5	54.5	60.6	60.6	60.6	63.6	69.7	84.8	90.9	97.0	100
No. 19.	7.1	46.4	60.7	60.7	60.7	78.6	78.6	78.6	85.7	89.3	96.4	100
No. 20.	37.0	59.3	63.0	66.7	74.1	77.8	81.5	81.5	85.2	88.9	96.3	100
No. 21.	—	14.8	33.0	70.4	81.5	81.5	81.5	88.9	88.9	92.6	96.3	100
No. 22.	—	26.9	38.5	42.3	42.3	42.3	57.7	61.5	73.1	84.6	96.2	100
No. 23.	35.3	58.8	64.7	76.5	82.4	82.4	82.4	82.4	82.4	94.1	100.0	100
No. 24.	17.6	35.3	41.2	47.1	52.9	58.8	58.8	58.8	64.7	82.4	88.2	100
Total,	6.8	37.2	46.1	50.2	53.4	58.0	61.5	65.4	72.5	78.7	86.1	100

DIAGRAM I.

Curve Showing Per Cent. of Employment for 2,178 Paper-box Workers during 52 Weeks.

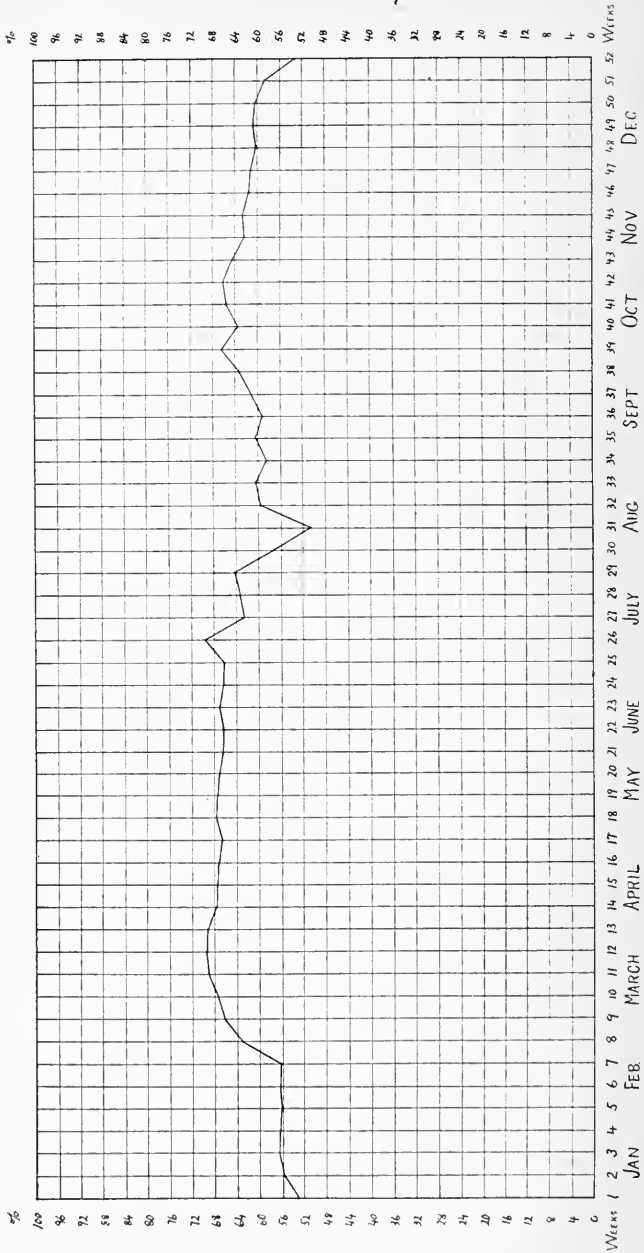


TABLE 10 (a).—*Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING—								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
14 and less than 16,	4	12	2	2	—	—	—	—	20
16 and less than 18,	3	22	42	28	14	10	2	—	121
18 and less than 21,	1	11	25	43	65	55	22	13	235
21 and less than 25,	2	—	13	18	50	48	41	44	216
25 and less than 30,	1	1	6	9	12	23	24	36	112
30 and less than 35,	—	—	1	1	8	16	9	36	71
35 and less than 40,	—	—	3	4	6	10	7	21	51
40 and less than 45,	—	—	1	—	2	9	5	9	26
45 and less than 50,	—	—	1	2	2	—	2	8	15
50 and less than 55,	—	—	—	—	3	2	1	3	9
55 and less than 60,	—	—	—	1	1	—	—	2	4
60 and over,	—	1	—	—	1	—	2	2	6
Total,	11	47	94	108	164	173	115	174	886

NOTE.—Data for age were not available for 1,292 workers.

TABLE 10 (b).—*Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING—							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
14 and less than 16,	4	16	18	20	20	20	20	—
16 and less than 18,	3	25	67	95	109	119	121	—
18 and less than 21,	1	12	37	80	145	200	222	13
21 and less than 25,	2	2	15	33	83	131	172	44
25 and less than 30,	1	2	8	17	29	52	76	36
30 and less than 35,	—	—	1	2	10	26	35	36
35 and less than 40,	—	—	3	7	13	23	30	21
40 and less than 45,	—	—	1	1	3	12	17	9
45 and less than 50,	—	—	1	3	5	5	7	8
50 and less than 55,	—	—	—	—	3	5	6	3
55 and less than 60,	—	—	—	1	2	2	2	2
60 and over,	—	1	1	1	2	2	4	2
Total,	11	58	152	260	424	597	712	174

NOTE.—Data for age were not available for 1,292 workers.

TABLE 11. — *Average Weekly Earnings: by Years of Experience.*

YEARS OF EXPERIENCE.	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	Total.
Less than 1,	9	19	28	16	10	2	1	-	85
1 and less than 2, . .	1	13	18	20	18	7	1	3	81
2 and less than 3, . .	-	8	20	23	23	21	7	2	104
3 and less than 4, . .	-	2	6	21	33	28	7	8	105
4 and less than 5, . .	-	2	6	10	19	28	14	8	87
5 and less than 6, . .	-	-	3	2	12	16	12	12	57
6 and less than 7, . .	-	-	-	4	7	8	6	15	40
7 and less than 8, . .	-	-	-	-	6	5	10	13	34
8 and less than 9, . .	-	-	-	3	9	8	10	12	42
9 and less than 10, . .	1	-	-	2	-	6	7	4	20
10 and less than 11, . .	-	-	-	-	3	9	6	9	27
11 and less than 12, . .	-	-	-	-	2	-	1	6	9
12 and less than 13, . .	-	-	-	-	2	4	4	12	22
13 and less than 14, . .	-	-	-	-	1	-	-	3	4
14 and less than 15, . .	-	-	-	-	1	2	1	9	13
15 and over,	-	1	1	1	10	16	12	48	89
Total,	11	45	82	102	156	160	99	164	819

NOTE. — Data concerning years of experience were not available for 1,359 workers.

TABLE 12. — *Home Conditions and Average Weekly Earnings (Cumulative).*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Living at home,	10	55	141	236	372	517	611	140
Living away from home, . .	1	2	10	25	56	81	102	40
Total,	11	57	151	261	428	598	713	180

NOTE. — Data concerning home conditions were not available for 1,285 workers.

TABLE 13. — *Home Conditions for 866 Employees: by Age Groups.*

AGE.	NUMBER AND PER CENT. OF WORKERS —				TOTAL.	
	LIVING AT HOME.		LIVING AWAY FROM HOME.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
14 and less than 16, . . .	19	95.0	1	5.0	20	100
16 and less than 18, . . .	119	98.3	2	1.7	121	100
18 and less than 21, . . .	212	90.9	21	9.1	233	100
21 and less than 25, . . .	175	82.9	36	17.1	211	100
25 and less than 30, . . .	82	73.9	29	26.1	111	100
30 and less than 35, . . .	54	78.3	15	21.7	69	100
35 and less than 40, . . .	32	71.1	13	28.9	45	100
40 and less than 45, . . .	19	79.2	5	20.8	24	100
45 and less than 50, . . .	8	57.1	6	42.9	14	100
50 and less than 55, . . .	3	33.3	6	66.7	9	100
55 and less than 60, . . .	1	25.0	3	75.0	4	100
60 and over,	3	60.0	2	40.0	5	100
Total,	727	83.9	139	16.1	866	100

NOTE. — Data for age were not available for 1,312 workers, and of the 886 workers whose ages were given, 20 gave no record of home conditions.

WAGES OF WOMEN IN WOMEN'S CLOTHING FACTORIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The manufacture of women's clothing on a large scale in this country did not begin until the latter half of the nineteenth century, and followed the introduction of the sewing machine into the clothing industries.

The manufacture of cloaks and mantillas as a wholesale business was said to have begun between 1848 and 1858. As an important industry, however, the manufacture of women's clothing, principally cloaks, began early in the sixties about the time that the Civil War, through the Government demand for clothing for soldiers and sailors, was giving another great impetus to the men's ready-made-clothing industry. The manufacture of women's suits was not begun, however, until early in the eighties. . . .¹

¹ Senate Document 645, Woman and Child Wage Earners, Vol. IX., p. 142.

The rapid development which has taken place during the last half-century is shown in the following tables, and is ascribed to the gradual transfer of work on women's clothing from the homes and custom dressmaking establishments to the factories.

Manufacture of Women's Clothing,¹ United States, 1859-1909.²

YEAR.	Number of Es- tablish- ments.	Wage Earners (Average Number).	Wages.	Cost of Materials.	Value of Product.	Value added by Manu- facture.
1909, . . .	4,558	153,743	\$78,568,261	\$208,788,226	\$384,751,649	\$175,963,423
1904, . . .	3,351	115,705	51,180,193	130,719,996	247,661,560	116,941,564
1899, . . .	2,701	83,739	32,586,101	84,704,592	159,339,539	74,634,947
1889, . . .	1,224	39,149	15,428,272	34,277,219	68,164,019	33,886,800
1879, . . .	562	25,192	6,661,005	19,559,227	32,004,794	12,445,567
1869, . . .	1,847	11,696	2,513,956	6,837,978	12,900,583	6,062,605
1859, . . .	188	5,739	1,193,032	3,323,335	7,181,039	3,857,704

¹ "The manufacture for the wholesale trade of a great variety of clothing for women, girls and children is covered by this classification, which includes the manufacture, not only of complete suits, but also of dresses, skirts, petticoats, kimonos, dressing sacques, wrappers, jackets, cloaks, capes, underwear, infants' clothing, shirt waists, linings, dress stays, belts, dress shields and similar articles. There is considerable duplication in the total value of products reported."

— United States thirteenth census, Vol. VIII., p. 398.

² United States thirteenth census, Vol. VIII., p. 399.

Increase in Value of Product, Women's Clothing¹ (1859-1909).

YEAR.	Value of Product.	Amount of Increase.	Per Cent. of Increase.
1909,	\$384,751,649	\$225,412,110	141.5
1899,	159,339,539	91,175,520	133.8
1889,	68,164,019	36,159,225	112.9
1879,	32,004,794	19,104,211	148.1
1869,	12,900,583	5,719,544	79.6
1859,	7,181,039	—	—

¹ Computed from Table 87, United States thirteenth census, Vol. VIII., p. 399.

The most important States in the manufacture of women's clothing, graded according to the value of their product, are New York, Pennsylvania, Ohio, Illinois and Massachusetts.

The following tables show the manufacture of women's clothing by States and a comparison of Massachusetts and the country as a whole: —

Manufacture of Women's Clothing by States.¹

STATE.	Number of Estab- lishments.	Number in Industry.	Capital.	Value of Product.
California,	64	1,197	\$642,890	\$1,672,313
Connecticut,	17	1,473	677,073	1,715,700
Georgia,	4	145	71,052	152,225
Illinois,	221	7,279	5,567,194	16,635,236
Indiana,	18	1,403	851,363	2,057,635
Iowa,	19	985	1,097,691	1,535,382
Kentucky,	15	475	272,622	772,082
Louisiana,	5	129	99,944	117,608
Maine,	7	574	388,201	686,329
Maryland,	72	3,030	1,694,363	4,351,263
Massachusetts,	174	6,686	4,222,853	11,727,980
Michigan,	52	2,521	1,889,520	3,586,856
Minnesota,	11	233	108,337	304,871
Missouri,	68	3,122	2,383,665	5,439,053
Nebraska,	6	91	88,703	159,632
New Hampshire,	8	273	364,518	395,764
New Jersey,	99	4,691	2,881,952	5,927,091
New York,	3,083	114,925	84,213,014	272,517,792
Ohio,	153	10,191	8,150,889	19,493,060
Pennsylvania,	401	18,080	12,254,847	32,837,424
Vermont,	6	375	317,891	502,643
Virginia,	3	52	46,846	61,052
Washington,	6	77	80,989	167,658
Wisconsin,	19	635	405,684	927,932
All other States, ²	27	379	528,956	1,007,068

¹ United States thirteenth census, Vol. VIII., pp. 682, 683.

² All other States embrace: Colorado, 2 establishments; Idaho, 1; Kansas, 2; North Carolina, 2; Oklahoma, 1; Oregon, 2; Rhode Island, 4; South Carolina, 1; Tennessee, 3; Texas, 2; and West Virginia, 7.

Statistics of Manufacture (Women's Clothing).

	CENSUS RETURNS ¹ FOR 1909.		Statistics of Manufactures for 1913, Massachusetts.
	United States.	Massachusetts.	
1. Number of establishments,	4,558	174	184
2. Capital,	\$129,301,057	\$4,222,853	\$5,083,449
3. Value of products,	\$384,751,649	\$11,727,980	\$13,812,249
4. Value added by manufacture (product less cost of material),	\$175,963,423	\$5,216,648	\$6,520,872
5. Cost of materials used, including fuel and rent of power,	\$208,788,226	\$6,511,332	\$7,291,377
6. Expense (rent, tax, contract, other),	\$33,715,001	\$746,996	- ²
7. Salaries,	\$20,417,768	\$657,881	- ²
8. Wages,	\$78,568,261	\$2,446,277	\$3,062,218
9. Total cost,	\$341,480,256	\$10,362,486	- ²
10. Value of product less total cost,	\$43,262,393	\$1,365,494	- ²
11. Employees:—			
Number of salaried officials and clerks,	18,796	663	- ²
Average number of wage earners employed during the year,	153,743	5,813	6,052
Male, 16 years of age and over, December 15,	58,316	1,299	1,385 ³
Female, 16 years of age and over, December 15,	103,063	4,662	4,043 ³
Female, under 16 years of age, December 15,	1,307	47	321 ⁴

¹ United States thirteenth census, Vol. VIII., pp. 518-521, 682, 683.² Not taken by the Massachusetts Bureau of Statistics.³ This is the number of employees eighteen years of age and over, December 13.⁴ This is the number of employees under eighteen years of age, December 13.

The following table, which shows the growth of the women's clothing industry in Massachusetts during the last five years for which figures are given by the Bureau of Statistics, shows also the numbers employed in the industry in the same period. During that time the numbers of both men and women employees have increased, until in 1913 Massachusetts had an average number of 4,627 women employed in making women's clothing. The following sections of the present study are devoted to an analysis of the work and wages of that part of this working force which is engaged in the manufacture of cloaks, suits, skirts, dresses, including house dresses, waists and kimonos.

*Manufacture of Women's Clothing in Massachusetts, 1909-13.*¹

YEAR.	Estab-lish-ments.	Capital invested.	Value of Stock and Materials used.	Amount of Wages paid during the Year.	Average Yearly Earnings.	WAGE EARNERS EMPLOYED.					Value of Product.	
						AVERAGE NUMBER.				Smallest Number.		Greatest Number.
						Females.		Both Sexes.				
						Males.	Females.	Both Sexes.	Both Sexes.			
1909,	- 2	- 2	5,813	5,200	6,212	\$11,727,980		
1910,	\$456 09	1,369	4,302	5,671	4,223	7,041	11,714,278	
1911,	469 61	1,397	4,295	5,692	4,113	7,014	11,745,884	
1912,	480 08	1,382	4,292	5,674	4,259	6,899	12,543,548	
1913,	505 98	1,425	4,627	6,052	4,196	7,394	13,812,249	

² No figures given.

¹ Massachusetts Statistics of Manufactures, 1909-13.

METHOD AND SCOPE OF THE INQUIRY.

The study of women's clothing by this Commission was made in the months of May, June, July and August. It is concerned with 36 establishments, situated in 7 cities and towns of the State. In these women's clothing factories a transcript of the pay-roll records for each female employee was taken for a period covering the fifty-two weeks preceding the date of the initiation of the investigation. This record in the case of 16 factories included the record of the number of hours worked each week. In as many cases as possible schedules were also filled out by the women workers themselves, in order that the Commission might have available such information as age, marital condition, living arrangements and length of experience. In addition, an inspection of the premises was made for the purpose of studying the occupations. The results of the analysis of the schedule material will be found in the section entitled "Analysis of the Wage Situation."

In accordance with the duties of the Commission as prescribed by the statute, the inquiry has been limited to ascertaining wages and rates for the various occupations, with such other matters as are most intimately connected with that subject. This procedure necessitated the omission of many subjects which might have proved both interesting and valuable as matters of public knowledge in connection with the wage situation. For example, the matters of overtime, sanitation, accidents and more detailed information as to the living arrangements and expenses of the women employees have a definite bearing on the matter of wages in any given employment. Moreover, these matters are under the jurisdiction of other boards and commissions in this State, and certain information concerning them appears from those sources from time to time. Consequently, the material gathered by the Commission is limited in scope and comprises only the data which in the experience of the Commission have proved to be most pertinent and useful in the attempt to improve the wage situation.

THE PROCESS OF MANUFACTURE.

The women's clothing industry in its transfer from the home and small custom shops to the factory has retained the processes of manufacture characteristic of the earlier stages of the business, differing only in the degree of specialization and in the use of power and more elaborate machine devices incident to the larger scale of production. The main processes of cutting, machine stitching, hand finishing and pressing are essentially the same, except whereas in the home the garment is entirely manufactured by one individual, in the factory it passes through the hands of a number of different operators, each performing one specialized task or group of allied tasks. As in the waist and dress shops we have a more highly organized and specialized replica of the work of the home dressmaker, so in the factories making cloaks, suits and skirts is reproduced on a large scale the activities of the custom tailor shop.

Dress and Waist Manufacture.

Designing. — The first step in the making of a ready-made garment is the designing of the model. From this model samples are made for demonstration to the retail trade. Owing to the rapid changes in the fashions, and the great competition in the business, a firm must produce a large number of models in order to secure enough orders to keep in existence. Most firms, therefore, employ at least one high-grade designer, and sometimes more during the busy season. In the shirtwaist houses women designers are usually employed. Their work consists in drawing designs for new garments in accordance with the latest ideas in foreign styles adapted to the needs of their market, and in draping models on the form until the desired effect is secured. When a designer is employed all the year around, she usually also takes some part in the management of the workrooms and the supervision of employees. Some designers work only at their special trade, sometimes going from firm to firm in accordance with the seasonal demands.

Sample Making. — The designer having prepared the model, a pattern is taken from it, according to which a number of sample garments are cut out. They are then given to a skilled machine operator, who during the season of designing specializes in this line of work, and is known as a sample maker. A single sample maker does all the stitching necessary to the garment. Special care is given in the preparation of samples, and higher rates are paid to machine operators while engaged in this work.

Cutting. — After orders have been taken from a sample, cardboard patterns are cut from it for the various stock sizes. The material out of which the garments are to be made is then laid out in layers on a long table, and the various sections of the pattern placed upon it in such a way as to utilize all the goods possible. The material is then cut out with shears, knife or cutting machine, according to the number of layers, which in turn depends upon the texture of the goods and the size of the order. In the case of cheap cotton house dresses and shirtwaists the layers of material are piled up so that a large number of garments may be cut out at a time. The work of cutting is entirely in the hands of men, except in establishments making certain lines of high-grade garments, where only one or at most a few garments need be cut out at once, and shears may be used in the operation. When goods are tucked they are returned to the cutting department to be shaped to the size of the pattern before the garment is seamed. This work is sometimes known as "sloping." Although this is usually a man's work, women are sometimes employed as slopers.

Assorting and Preparing. — After the garments have been cut out they are distributed to the machine operators by the forewoman. In highly organized factories, where there is a large output, girls known as assorters and preparers are employed who arrange in bundles the various parts of the garments as they come from the cutters, and add to each bundle all necessary trimmings and findings. In small establishments cutters or forewomen prepare the work.

Machine Operating. — The organization of the process of machine operating or stitching differs greatly with the kind

and quality of the garment manufactured, and also to a less degree with the policy of the individual shop. Where the cheaper grade of house dresses and shirtwaists are manufactured there is usually much section work, each worker performing only one specific machine operation upon each of the lot of garments. Thus not only are skirts and waists stitched by different operators, but workers who stitch special seams, such as setting the sleeves into the armholes, attaching the collar to the waist, and joining the waist and skirt are also found. On the various grades of garments special tuckers, shirrers, hemstitchers, lace runners, button-setters and buttonhole makers are also used. As different grades of skill are required to perform these various operations it is possible to use a larger amount of apprentice labor than where the entire garment is stitched by one individual. In the manufacture of silk waists and dresses there is usually much less subdivision, one operator stitching all the seams of the waist body and sleeves, while another does the necessary hemstitching.

In spite of the extensive subdivision of machine operation in many establishments it has not been found possible, except sometimes in the case of buttonhole and button machine operators and tuckers and lace trimmers, to get information as to the specific task of each person classed as machine operator. Even workers experienced in operations requiring a high grade of skill are moved about from one task to another according to the work required on each special order, and in the case of those engaged in the simpler operations there is even more shifting. For this reason it has been necessary in this study to group together under a single head all machine operators, irrespective of whether they are section workers or make a complete garment.

Machine operating in the dress and waist shops is almost entirely in the hands of women. All machines are run by electric power, and there is little unavoidable physical strain upon the workers. Piece rates are usually paid in this occupation, and in the busy season, when the shops are run at full capacity and every machine is in action, the long hours of work at high speed tend to be somewhat nervously exhausting.

Draping. — In the manufacture of ready-made dresses, after the waist and skirt are stitched, they must be adjusted at the waist line and joined together. This work, which corresponds to the fitting of a custom-made dress, is prepared for stitching by the draper, a skilled woman worker who places the garment on a figure of the desired stock size, adjusts the pleats and gathers and pins the skirt and waist together. The stitching is then done on the machine by a special operator known as a joiner. Where cheap cotton house dresses are produced the work of the draper consists only of the simplest adjustment described above, and indeed some of the cheapest garments are not fitted on the figure at all, the folds being adjusted and the skirt and waist joined by experienced stitchers without draping. In the manufacture of high-grade costumes, however, especially where there is much hand sewing, the work of the draper is exceedingly important, and experienced dressmakers are employed at the task. They not only fit the garment to the form and adjust the belt line, but also hang the skirt, drape the folds of the waist and pin on the girdle and trimmings. Garments of this sort usually go direct from the draper to the finisher, who completes the process of manufacture by sewing by hand the adjustments planned by the draper.

Finishing. — A certain amount of hand sewing is required in the making of many shirtwaists and dresses, even of the cheapest grade. The amount of skill required in the occupation of finishing, as the work is called, varies greatly with the nature of the product. In the manufacture of cheap machine garments finishing consists only in such work as sewing on hooks and eyes and fancy buttons. On the other hand, in the manufacture of high-class silk and wool dresses it is usually necessary to employ more experienced workers, persons who have had a general dressmaker's training, to sew on the girdles and trimmings, attach lace yokes, and in general complete the work prepared by the draper's pins. Garments of chiffon, lace and other soft materials are almost entirely made by hand by skilled finishers.

There is little or no work for the finisher in the making of the simple cotton or silk shirtwaists, unless fancy buttons and

other trimming which cannot be sewn on by machine are used.

Cleaning. — When the machine processes are completed on a garment it is handed over to a young girl who cuts off the thread ends. This work, which is known as cleaning, is one of the most unskilled in the industry. In some factories cleaning is done by the examiners; in others, cleaners are classed as finishers; therefore it is not possible to designate in this study all the workers engaged in this special task.

Examining. — After the garment is completed it goes to the examiner, who inspects it carefully for any errors in stitching, repairs by hand all slight defects, and, in the case of the higher grade garments, ascertains by measurement and adjustment to the form that the garment accords with the plan and dimensions of the model. In some establishments certain workers classed as examiners are little more than cleaners, while in others, where the product is of a higher grade, skilled examiners are necessary to insure the successful turning out of an order.

Pressing. — Garments which have become rumpled in the process of manufacture, and which depend for their sale in the retail market upon their attractiveness and “ready-to-wear” appearance, are pressed before shipment from the factory. Except where garments are made of serges and other heavy goods pressers are usually women. Their work is not heavy, as cotton and light silk goods are readily pressed out with a light iron.

Folding. — Delicate shirtwaists of medium and higher grades are frequently shipped in individual boxes in order to appear fresher and more attractive to the eye of the retail purchaser. House dresses are usually folded and bundled into packages of four or six garments. Special workers are often employed whose work consists in folding and packing such goods.

Cloak, Suit and Skirt Manufacture.

As the manufacture of waists and dresses is mainly a woman's industry, so the cloak, suit and skirt factories, like the custom tailor shops, employ mostly men. In some es-

tablishments women operators stitch the skirts, especially those of light weight materials, but in general, machine operating, as well as designing, cutting and pressing, is in the hands of men.

The only occupation in which women are mainly employed is that of finishing. Skirt finishers baste hems, attach hooks, eyes and buttons, cut off thread ends and do all other hand sewing necessary to the finish of the belt and placket. There are two grades of coat finishers, — those who baste and fell the linings, and the less skilled group who perform such work as sewing on buttons and cleaning.

METHOD OF TREATING WAGE MATERIAL.

In the preparation of the material for tabulation all records of persons who appeared on the pay roll for less than four weeks out of the fifty-two under consideration were thrown out. This was done in order that the conclusions reached might apply only to workers who could legitimately be considered a part of the normal working force of the industry.

In computing weekly earnings and hours worked each week for individual workers, the procedure for each individual was as follows: the sum of all payments made during the fifty-two-week period, — that is, the girl's total income from her work for the year, — was found. This sum was divided by the number of weeks during which she was actually at work, as indicated by the number of weekly payments made to her. When the weekly payment was for a paid vacation the vacation week was counted as a week actually worked. In this way her average weekly earnings for the time she was at work in the occupation under consideration were ascertained. A corresponding procedure was adopted in treating hours of work. The number of hours worked during the fifty-two-week period was totaled, and this sum divided by the number of weeks actually at work, as indicated by the number of weekly payments made. The amounts paid were not always the equivalent of a full week's work. The factory or department may have been running on short time, girls may have entered or left the factory in the middle of a week, or absences may have occurred because of illness or other indi-

vidual reasons. This necessitates a slight misrepresentation in the analysis of earnings, which could be avoided only where a record of hours was kept in the factory, and even then it was not possible to ascertain to which of the above causes the short time should be ascribed. The Commission has made it a rule to follow the written record, and has attempted to present the pay-roll figures as found, without omissions or additions due to interpretations of its own.

ANALYSIS OF THE WAGE SITUATION.

Table 1, (a) and (b), in which the weekly earnings of women in clothing factories are classified according to the occupations in which they were engaged, shows that one-half (50.1 per cent.) earned less than \$6 a week, and that more than three-fourths (78.1 per cent.) earned less than \$8 a week. The lowest paid occupations, judged by the percentage who earned less than \$6 a week, are dress and waist finishing and pressing. The highest paid, according to the percentage who earned less than \$6 a week, are sample making and draping. No sample maker earned less than \$7 a week, in contrast with the fact that more than three-fourths of the dress and waist finishers and pressers earned less than \$7 a week. The significant points of Table 1 are, therefore, the low wages shown to be paid in the industry as a whole, and the wide differences in earnings according to the occupations involved.

The weekly rates at which the workers were scheduled to be paid are shown in Table 2. Piece workers, who make up an important group in this industry, are necessarily excluded from this table, as well as all time workers whose rates were not available, so that the table shows rates for only 942 of the 1,961 women whose actual earnings are shown in Table 1. In common with the table of earnings, this table shows a wide difference between different occupations with regard to their rates of payment. Machine operating, dress and waist finishing, and examining show the lowest rates, judged by the percentage scheduled for less than \$6, and sample making and draping the highest. Only 27.3 per cent. of the workers were on rates of less than \$6 a week, as against 50.1 per cent.

who actually received an average per week of less than that amount. A comparison between the other items in this table and those in Table 1 shows a very general failure among the workers studied in this industry to make full wages. This failure may be ascribed to various causes, among which are compulsory short time, particularly during the slack season in the industry, illness and the preference of the employee. Actual records do not exist, however, to show to what cause any particular worker's failure to make full wages may be ascribed.

In Table 3 the 1,961 workers studied are classified according to the total amount earned during the past year in the factory in which they were working at the time the study was made. Nearly one-half (47.7 per cent.) earned less than \$100 in the course of the year, and only 174 (8.9 per cent.) out of the total number earned as much as \$400 a year. These earnings are manifestly lower than those which the weekly earnings described in Table 1 would yield by the year. Their low level may be due in large part to unemployment proper, that is, inability to get work especially during the slack season, or it may be due to changing from factory to factory, leaving the factory to marry, or to illness or other miscellaneous reasons.

In Table 4 the establishments manufacturing dresses and waists and the establishments manufacturing cloaks, suits and skirts are grouped separately, and a comparison is afforded of the two groups as well as of the various establishments. The dress and waist firms pay lower wages, as shown by the fact that 52.2 per cent. of the workers in those establishments earned less than \$6 a week, as against 37 per cent. of the cloak, suit and skirt workers who earned less than that amount. The cloak, suit and skirt work is in general more skilled, and the wages are doubtless also influenced by the greater degree of organization among the employees. Among the dress and waist firms there is a variation from an establishment which paid 87.7 per cent. of its workers less than \$6 a week to one in which only 12.9 per cent. of the women employees earned less than that amount. These variations depend in part upon the location

(whether in large or small cities), partly upon the kind of product, and partly upon the degree of unionization. At the same time, establishments situated in practically the same locality and depending upon the same sources of labor supply are shown to pay widely differing scales of wages, a fact which shows the slight basis upon which the ordinary competition arguments rest.

Corresponding variations are found in the table (Table 5) in which the weekly rates of the establishments in the two groups are described. The factories in the two groups differ in the general level, although the dress and waist firms do not fall so far behind as in the table showing earnings.

The table showing the hours of work of the women employees in clothing factories (Table 6) is concerned with only 416 workers, owing to the fact that factory records of hours worked were not kept for the remaining 1,545 workers. It is probably the case, however, that the findings for these 416 women are fairly typical of the group as a whole. The largest single group of workers are those who worked, on the average, forty-two and less than forty-six hours a week, and the second largest group is made up of those who worked forty-six hours and less than fifty. These two groups include 47.6 per cent. of the total number included in the table. It is therefore to be concluded that the trade does not afford full working time to its employees, taking the year as the unit, a fact which must be taken into account in the discussion of low wages in the industry. Well-known characteristics of the trade are the long hours in the busy season and the counterbalancing short hours in the slack season.

The situation regarding customary hours of work is shown in Table 7 with respect to the hours in each establishment for which records were available. The ordinary working time is shown to be appreciably longer in the dress and waist establishments. In each group the firms differ widely in the average length of running time.

In Tables 8 and 9 and in Diagram I. the fluctuation and duration of employment are analyzed. Table 8 shows the number of employees in each occupation who remained at work for the specified number of months. In the first col-

umn, consisting of those who worked for fifty-two weeks without vacation, the number is naturally small. In the second column, consisting of those who worked for forty-eight or more weeks, the number is still small, and only in the case of one occupation, sample making, does it include one-half of the employees. Plain finishers, examiners and drapers are next in order in this group. On the whole, the more skilled occupations afford steadier employment.

From the records available for the Commission's use it is not clear that the amount of absence shown may be called strictly unemployment. When a name disappears from a pay roll in the sixth month of the year, for example, it is not clear whether the girl has left of her own accord for one of many possible reasons, or whether she has been laid off by her employer. Also, it is not known whether her name may not appear on the pay roll of another establishment, or even in another industry, in which case it is obvious that she cannot be termed "unemployed." The material which could be obtained on this question was not a matter of record and appeared highly unreliable. Consequently, caution has been used in terming the situation described in the present tables "unemployment."

In Table 9 the duration of employment is analyzed according to the establishments involved. The more skilled group, the cloak, suit and skirt workers, show themselves to be the steadier workers. They are employed more months during the year, but work on an average less number of hours a week than dress and waist workers. This is to be explained by the fact that there are two distinct busy seasons, as shown in Diagram I., for cloak, suit and skirt workers, thus making the employment in a sense more regular than the dress and waist workers, who have the one busy season in the spring and work longer hours as a result. The tendency toward irregularity of work is much greater in some establishments than in others.

Diagram I. shows the total number of employees studied as they appeared on the books each week in the year, grouped according to their product. The cloak, suit and skirt industry shows two clearly marked busy seasons, one

in the spring and one in the autumn, while in the dress and waist industry the autumn season is not so important as the spring season. Both industries have dull periods in midsummer and midwinter.

The remaining tables are concerned with the age, experience and living arrangements of those women employees in clothing factories for whom information could be obtained, considered especially in connection with their wages. Table 10 (a) shows that the largest single age group is composed of girls between the ages of twenty-one and twenty-five. Four hundred and forty, or 63.8 per cent. of the whole number, are less than twenty-five years old. An explanation of the fact that so large a majority of the women employees are young girls is sometimes ascribed to the fact that in such operations as machine operating the speed required often cannot be maintained day by day for more than a few years. Nevertheless, groups of middle-aged women, usually Italian or Jewish, work as finishers year after year in certain factories. In general there is a clear relationship between the amount of earnings and the age of the worker, showing that up to, roughly, the age of thirty-five the earnings tend to increase.

Table 11 shows a clear relationship between the wages received and the years of experience of the worker, a conclusion which fails to support the assertion that after a few years in machine operations the earnings fall back to a lower level.

The percentage of the workers who live at home is shown in Table 12 to be 82.2. The extremely low-paid girls almost without exception lived at home, while at the other end of the scale (among those who earned more than \$9 a week) more than one-fourth lived away from home. When grouped according to age, as in Table 13, the extremely young and the oldest workers without exception lived at home. Both wages and age, then, appear to be important factors in determining the living arrangements of women workers.

SUMMARY OF ANALYSIS.

A summary of the results of the investigation into the wages of women in the women's clothing industry in this State shows that one-half earned less than \$6 a week and nearly one-half earned less than \$100 in the course of the year. The majority averaged less than fifty hours' work a week, and only a small proportion worked as much as eleven months of the year. The larger number are girls less than twenty-five years of age who lived with parents or relatives.

TABLE 1 (a). — *Average Weekly Earnings: by Occupations.*

OCCUPATIONS.		NUMBER AND PER CENT. OF WORKERS EARNING —																TOTAL.	
		UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.			
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.		
Machine operating,	.	54	4.9	121	11.1	155	14.2	189	17.3	163	14.9	159	14.5	110	10.0	143	13.1	1,094	100
Dress and waist finishing,	.	22	6.3	42	12.0	80	22.8	82	23.4	40	11.4	37	10.6	30	8.6	17	4.9	350	100
Coat finishing,	.	—	—	4	3.5	11	9.6	20	17.5	16	14.0	22	19.4	15	13.2	26	22.8	114	100
Plain finishing,	.	4	3.5	4	3.5	26	23.0	22	19.5	23	20.4	14	12.5	10	8.8	10	8.8	113	100
Pressing,	.	4	6.9	5	8.6	7	12.1	18	31.0	10	17.3	7	12.1	5	8.6	2	3.4	58	100
Examining,	.	3	7.9	6	15.8	4	10.5	5	13.2	8	21.0	3	7.9	4	10.5	5	13.2	38	100
Folding,	.	—	—	1	4.3	4	17.4	8	34.8	4	17.4	6	26.1	—	—	—	—	23	100
Sample making,	.	—	—	—	—	—	—	—	—	—	—	2	13.3	2	13.3	11	73.4	15	100
Draping,	.	—	—	—	—	—	—	—	—	2	18.2	3	27.3	1	9.1	5	45.4	11	100
Miscellaneous,	.	4	2.8	25	17.2	29	20.0	24	16.6	13	9.0	16	11.0	16	11.0	18	12.4	145	100
Total,	.	91	4.6	208	10.6	316	16.1	368	18.8	279	14.2	269	13.7	193	9.9	237	12.1	1,961	100

TABLE 1 (b). — *Average Weekly Earnings: by Occupations (Cumulative).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Machine operating, .	4.9	16.0	30.2	47.4	62.3	76.9	86.9	13.1
Dress and waist finish- ing, .	6.3	18.3	41.4	64.6	76.0	86.6	95.1	4.9
Coat finishing, . .	-	3.5	13.2	30.7	44.7	64.0	77.2	22.8
Plain finishing, . .	3.5	7.1	30.1	49.6	69.9	82.3	91.2	8.8
Pressing, . . .	6.9	15.5	27.6	58.6	75.9	87.9	96.6	3.4
Examining, . . .	7.9	23.7	34.2	47.4	68.4	76.3	86.8	13.2
Folding, . . .	-	4.3	21.7	56.5	73.9	100.0	100.0	-
Sample making, . .	-	-	-	-	-	13.3	26.7	73.3
Draping, . . .	-	-	-	-	18.2	45.5	54.5	45.5
Miscellaneous, . .	2.8	20.0	40.0	56.6	65.5	76.6	87.6	12.4
Total, . . .	4.6	15.2	31.4	50.1	64.4	78.1	87.9	12.1

TABLE 2. — *Weekly Rates: by Occupations.*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —															
	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Machine operating, . . .	1	—	22	7.3	44	14.6	42	13.9	30	10.0	33	11.0	25	8.3	105	34.9
Dress and waist finishing, . .	1	.4	3	1.1	16	5.7	65	23.3	75	26.9	42	15.0	34	12.2	43	15.4
Coat finishing, . . .	—	—	—	—	—	—	2	2.6	9	11.8	17	22.4	17	22.4	31	40.8
Plain finishing, . . .	—	—	—	—	4	4.4	6	6.6	19	20.9	16	17.6	14	15.4	32	35.1
Pressing, . . .	—	—	—	—	3	11.1	2	7.4	3	11.1	6	22.2	6	22.2	7	26.0
Examining, . . .	—	—	7	20.0	2	5.7	1	2.8	5	14.3	8	22.9	3	8.6	9	25.7
Folding, . . .	—	—	—	—	1	5.5	1	5.6	8	44.4	6	33.3	1	5.6	1	5.6
Sample making, . . .	—	—	—	—	—	—	—	—	—	—	—	—	1	9.1	10	90.9
Draping, . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	1	4	80.0
Miscellaneous, . . .	—	—	5	5.1	12	12.1	18	18.2	10	10.1	12	12.1	11	11.1	31	31.3
Total, . . .	1	.1	37	3.9	82	8.7	137	14.5	159	16.9	140	14.9	113	12.0	273	29.0
															942	100

NOTE. — Of the 1,961 persons whose records were studied, data concerning rates were not available for 1,019, a majority of whom were piece workers.

TABLE 3. — *Annual Earnings: by Occupations.*

OCCUPATIONS.	NUMBER OF WORKERS WITH ANNUAL EARNINGS OF —										Total.
	Under \$100.	\$100 and under \$150.	\$150 and under \$200.	\$200 and under \$250.	\$250 and under \$300.	\$300 and under \$350.	\$350 and under \$400.	\$400 and under \$450.	\$450 and under \$500.	\$500 and over.	
Machine operating,	499	130	97	78	71	54	63	39	34	29	1,004
Dress and waist finishing,	205	31	20	28	17	17	16	9	4	3	350
Coat finishing,	35	19	14	12	7	4	10	4	3	6	114
Plain finishing,	51	8	3	13	10	16	8	—	1	3	113
Pressing,	33	5	6	5	3	2	1	1	—	2	58
Examining,	20	1	1	4	2	2	1	1	3	3	38
Folding,	11	2	2	3	2	1	2	—	—	—	23
Sample making,	2	1	2	1	—	—	—	2	—	7	15
Draping,	3	3	—	1	—	—	1	—	2	1	11
Miscellaneous,	77	10	12	6	9	5	9	8	3	6	145
Total,	936	210	157	151	121	101	111	64	50	60	1,961

TABLE 4. — *Average Weekly Earnings: by Establishments (Cumulative).*
Dress and Waist.

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	14.2	44.2	66.4	81.9	90.3	96.0	98.2	1.8
No. 2,	1.9	10.3	27.1	51.6	63.9	78.7	86.5	13.5
No. 3,	0.9	1.7	14.7	45.7	69.0	86.2	89.7	10.3
No. 4,	1.7	15.7	41.7	71.3	86.1	92.2	97.4	2.6
No. 5,	2.7	17.1	36.0	55.0	68.5	89.2	95.5	4.5
No. 6,	10.1	28.1	46.1	58.4	74.2	83.1	94.4	5.6
No. 7,	1.2	2.4	3.5	12.9	21.2	44.7	76.5	23.5
No. 8,	7.3	19.5	37.8	59.8	65.9	79.3	84.1	15.9
No. 9,	—	2.7	6.7	13.3	25.3	50.7	74.7	25.3
No. 10,	6.9	18.1	27.8	51.4	76.4	84.7	93.1	6.9
No. 11,	2.9	11.6	44.9	68.1	76.8	82.6	91.3	8.7
No. 12,	20.0	46.2	70.8	87.7	98.5	100.0	100.0	—
No. 13,	3.2	7.9	14.3	30.2	50.8	68.3	82.5	17.5
No. 14,	1.7	8.5	16.9	33.9	40.7	57.6	74.6	25.4
No. 15,	—	—	13.8	37.9	67.1	84.5	89.7	10.3
No. 16,	4.2	14.6	31.3	45.8	58.3	79.2	93.8	6.2
No. 17,	—	4.7	18.6	39.5	65.1	79.1	88.4	11.6
No. 18,	—	8.3	16.7	27.8	44.4	66.7	75.0	25.0
No. 19,	5.7	20.0	37.1	54.3	68.6	82.9	88.6	11.4
No. 20,	—	—	—	13.3	26.7	50.0	66.7	33.3
No. 21,	—	6.7	16.7	23.3	36.7	50.0	90.0	10.0
No. 22,	10.3	17.2	44.8	65.5	79.3	86.2	89.7	10.3
Total,	5.1	17.0	33.2	52.2	66.2	79.7	89.2	10.8

Cloak, Suit and Skirt.

No. 23,	—	2.1	8.3	25.0	31.3	52.1	66.7	33.3
No. 24,	—	—	6.9	10.3	24.1	37.9	55.2	44.8
No. 25,	—	7.4	18.5	40.7	44.4	66.7	81.5	18.5
No. 26,	—	—	19.2	38.5	53.8	61.5	73.1	26.9
No. 27,	—	3.8	30.8	50.0	53.8	65.4	84.6	15.4
No. 28,	—	—	20.0	50.0	75.0	95.0	95.0	5.0
No. 29,	—	—	10.0	35.0	60.0	80.0	90.0	10.0
No. 30,	—	6.3	31.3	50.0	75.0	87.5	93.8	6.2
No. 31,	6.3	6.3	18.8	31.3	81.3	81.3	87.5	12.5
No. 32,	—	—	18.2	36.4	54.5	54.5	81.8	18.2
No. 33,	9.1	18.2	54.5	54.5	81.8	90.9	90.9	9.1
No. 34,	9.1	18.2	27.3	45.5	63.6	90.9	90.9	9.1
No. 35,	12.5	25.0	62.5	75.0	75.0	87.5	100.0	—
No. 36,	—	—	—	—	—	100.0	100.0	—
Total,	1.5	4.4	20.0	37.0	52.6	67.8	79.6	20.4
Total of all establishments.	4.6	15.2	31.4	50.1	64.4	78.1	87.9	12.1

TABLE 5. — *Weekly Rates: by Establishments (Cumulative).**Dress and Waist.*

ESTABLISHMENTS.	PER CENT. OF WORKERS WITH WEEKLY RATES OF —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	—	16.9	45.8	68.9	82.5	91.5	98.3	1.7
No. 2,	—	2.2	6.7	31.1	48.9	68.9	80.0	20.0
No. 3,	—	—	—	2.4	33.3	69.0	88.1	11.9
No. 4,	—	—	23.5	64.7	85.3	88.2	94.1	5.9
No. 5,	—	12.0	32.0	48.0	64.0	72.0	72.0	28.0
No. 6,	—	—	—	38.7	74.2	80.6	90.3	9.7
No. 7,	—	—	2.4	2.4	10.6	22.4	38.8	61.2
No. 8,	—	4.4	8.9	35.6	75.6	88.9	91.1	8.9
No. 9,	—	—	1.5	10.4	11.9	19.4	34.3	65.7
No. 11,	2.4	4.8	7.1	26.2	45.2	59.5	73.8	26.2
No. 12,	—	—	25.0	25.0	62.5	100.0	100.0	—
No. 13,	—	—	—	5.7	5.7	25.7	42.9	57.1
No. 15,	—	—	—	9.1	36.4	45.5	54.5	45.5
No. 16,	—	—	12.0	48.0	64.0	76.0	88.0	12.0
No. 17,	—	—	—	3.4	27.6	48.3	65.5	34.5
No. 18,	—	—	11.1	11.1	55.6	55.6	77.8	22.2
No. 19,	—	—	—	33.3	44.4	66.7	66.7	33.3
No. 20,	—	—	—	—	42.9	85.7	100.0	—
No. 21,	—	—	—	12.5	25.0	43.8	50.0	50.0
No. 22,	—	—	—	—	—	75.0	75.0	25.0
Total, . . . . .	.1	5.1	15.5	32.6	49.7	63.5	74.3	25.7

Cloak, Suit and Skirt.

ESTABLISHMENTS.	PER CENT. OF WORKERS WITH WEEKLY RATES OF —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 23,	—	—	9.1	9.1	31.9	45.5	45.5	54.5
No. 24,	—	—	—	—	11.1	33.3	61.1	38.9
No. 25,	—	—	—	3.7	25.9	33.3	44.4	55.6
No. 26,	—	—	—	14.3	50.0	50.0	71.4	28.6
No. 27,	—	—	7.7	26.9	42.3	53.8	57.7	42.3
No. 28,	—	—	—	—	—	30.0	60.0	40.0
No. 29,	—	—	—	—	6.7	26.7	60.0	40.0
No. 30,	—	—	—	—	7.7	53.8	92.3	7.7
No. 31,	—	—	—	—	—	20.0	40.0	60.0
No. 32,	—	—	—	9.1	18.2	36.4	36.4	63.6
No. 33,	—	—	—	—	33.3	50.0	66.7	33.3
No. 34,	—	—	—	—	28.6	71.4	85.7	14.3
No. 35,	—	—	—	14.3	42.9	71.4	85.7	14.3
Total,	—	—	2.0	7.1	23.0	41.8	58.7	41.3
Total of all estab- lishments.	.1	4.0	12.7	27.3	44.2	59.0	71.0	29.0

NOTE. — Data concerning rates were not available for Establishments Nos. 10, 14 and 36.

TABLE 6. — *Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 30, . . .	9	2	3	2	—	—	—	—	16
30 and less than 34, .	—	12	2	4	7	1	—	—	26
34 and less than 38, .	1	8	15	14	7	7	7	1	60
38 and less than 42, .	3	7	20	16	14	10	14	6	90
42 and less than 46, .	1	8	18	22	16	17	7	15	104
46 and less than 50, .	—	3	14	26	13	14	6	18	94
50 and less than 54, .	—	4	7	4	2	1	2	1	21
54 and over, . . .	—	—	—	1	—	2	1	1	5
Total, . . .	14	44	79	89	59	52	37	42	416

NOTE. — Data concerning hours were not available for 1,545 workers.

TABLE 7. — *Hours of Labor: by Establishments (Cumulative).**Dress and Waist.*

ESTABLISHMENTS.	PER CENT. OF WORKERS WORKING —							
	Less than 30 Hours.	Less than 34 Hours.	Less than 38 Hours.	Less than 42 Hours.	Less than 46 Hours.	Less than 50 Hours.	Less than 54 Hours.	54 Hours and over.
No. 3,	—	2.7	8.1	29.7	62.2	97.3	100.0	—
No. 4,	—	2.8	8.3	16.7	36.1	69.4	97.2	2.8
No. 5,	—	—	—	21.4	50.0	78.6	100.0	—
No. 6,	23.3	43.3	60.0	83.3	93.3	100.0	100.0	—
No. 8,	4.4	8.9	11.1	24.4	62.2	97.8	100.0	—
No. 11,	—	4.0	8.0	20.0	56.0	96.0	100.0	—
No. 13,	2.3	4.7	23.3	41.9	79.1	97.7	100.0	—
No. 16,	—	—	12.0	24.0	60.0	100.0	100.0	—
No. 17,	—	5.4	35.1	64.9	83.8	97.3	100.0	—
No. 21,	5.9	11.8	17.6	82.4	100.0	100.0	100.0	—
Total,	3.4	8.0	18.6	39.0	67.2	93.2	99.7	.3

Cloak, Suit and Skirt.

No. 24,	—	—	—	27.8	44.4	77.8	77.8	22.2
No. 25,	—	7.4	33.3	66.7	88.9	100.0	100.0	—
No. 28,	5.0	15.0	75.0	95.0	100.0	100.0	100.0	—
No. 31,	20.0	90.0	100.0	100.0	100.0	100.0	100.0	—
No. 32,	9.1	9.1	18.2	63.6	90.9	100.0	100.0	—
No. 35,	14.3	14.3	85.7	100.0	100.0	100.0	100.0	—
Total,	5.4	17.2	45.2	71.0	84.9	95.7	95.7	4.3
Total of all estab- lishments.	3.8	10.1	24.5	46.2	71.2	93.8	98.8	1.2

NOTE. — Data concerning hours were not available in 20 establishments.

TABLE 8. — *Fluctuation of Employment among 1,961 Workers; by Occupations.*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
Machine operating,	2.0	12.2	20.8	25.0	30.3	37.0	41.7	44.9	55.8	64.3	74.3	100
Dress and waist finishing,	2.0	13.4	18.6	22.9	26.3	29.4	33.1	36.9	42.3	50.6	58.9	100
Coat finishing,	3.5	10.5	17.5	25.4	31.6	38.6	50.0	54.4	64.0	68.4	84.2	100
Plain finishing,	4.4	21.2	32.7	38.1	43.4	44.2	44.2	50.4	57.5	63.7	74.3	100
Pressing,	1.7	12.1	12.1	13.8	19.0	20.7	31.5	37.9	46.6	62.1	77.6	100
Examining,	7.9	21.1	26.3	31.6	42.1	47.4	47.4	47.4	63.2	76.3	84.2	100
Folding,	4.3	17.4	21.7	26.1	30.4	34.8	43.5	43.5	52.2	52.2	69.6	100
Sample making,	6.7	53.3	53.3	60.0	60.0	60.0	60.0	60.0	80.0	86.7	86.7	100
Draping,	—	18.2	27.3	27.3	36.4	36.4	45.5	45.5	63.6	72.7	81.8	100
Miscellaneous,	2.1	17.2	26.9	28.3	33.8	35.9	37.9	42.8	51.0	59.3	72.4	100
Total,	2.4	13.3	21.5	25.8	30.9	36.0	40.6	44.1	53.6	61.9	72.4	100

TABLE 9. — *Fluctuation of Employment among 1,961 Workers: by Establishments.
Dress and Waist.*

PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —													
ESTABLISHMENTS.													
	12	11	10	9	8	7	6	5	4	3	2	1	
No. 1.	—	—	26.5	4.0	17.3	27.4	39.4	45.1	54.9	63.7	70.4	100	
No. 2.	8.4	23.9	14.7	29.7	31.6	34.8	37.4	39.4	45.8	53.5	67.1	100	
No. 3.	1.9	5.2	18.0	19.8	28.4	37.9	39.7	40.5	56.0	68.1	81.0	100	
No. 4.	1.7	5.2	8.7	13.9	17.4	20.9	27.8	39.1	39.1	47.0	57.4	100	
No. 5.	—	9.0	18.0	23.4	25.2	28.8	32.4	36.0	45.9	55.9	77.5	100	
No. 6.	1.1	9.2	2.2	5.6	5.6	5.6	10.1	14.6	29.2	41.6	55.1	100	
No. 7.	—	43.5	54.1	57.6	60.0	64.7	69.4	72.9	77.6	83.5	89.4	100	
No. 8.	4.9	23.6	35.4	36.6	39.0	42.7	43.9	42.7	52.4	62.2	72.0	100	
No. 9.	10.7	32.0	38.7	44.0	44.0	48.0	48.0	52.0	60.0	69.3	72.0	100	
No. 10.	4.2	11.1	18.1	23.6	27.8	31.9	37.5	44.4	52.8	63.3	84.7	100	
No. 11.	1.4	4.3	5.8	10.1	13.0	14.5	17.4	17.4	26.1	33.3	43.5	100	
No. 12.	—	1.5	1.5	1.5	3.1	6.2	7.7	12.3	21.5	35.4	61.5	100	
No. 13.	1.6	4.8	9.5	12.7	14.3	19.0	20.6	20.6	38.1	42.9	50.8	100	
No. 14.	—	—	37.3	45.8	55.9	66.1	67.8	72.9	86.4	93.2	94.9	100	
No. 15.	1.7	43.1	55.2	60.3	70.7	79.3	81.0	82.8	84.5	84.5	91.4	100	
No. 16.	2.1	22.9	45.8	54.2	58.3	64.6	66.7	68.8	70.8	72.9	75.0	100	
No. 17.	—	2.3	11.6	16.3	25.6	30.2	32.6	32.6	44.2	55.8	65.1	100	
No. 18.	—	16.7	19.4	19.4	19.4	36.1	36.1	38.9	55.6	61.1	75.0	100	
No. 19.	2.9	20.0	22.9	22.9	22.9	28.6	37.1	42.9	42.9	45.7	51.4	100	
No. 20.	—	20.0	20.0	23.3	26.7	26.7	43.3	56.7	83.3	86.7	86.7	100	
No. 21.	—	23.3	63.3	66.7	73.2	76.7	80.0	83.3	86.7	90.0	93.3	100	
No. 22.	3.4	20.7	24.1	24.1	31.0	37.9	41.4	51.7	55.2	58.6	69.0	100	
Total,	2.2	13.4	20.5	24.5	29.4	34.7	39.3	42.6	52.3	60.9	71.1	100	

DIAGRAM I.

Curve Showing Per Cent. of Employment for 270 Cloak, Suit, and Skirt Workers and 1,691 Dress and Waist Workers during 52 Weeks.

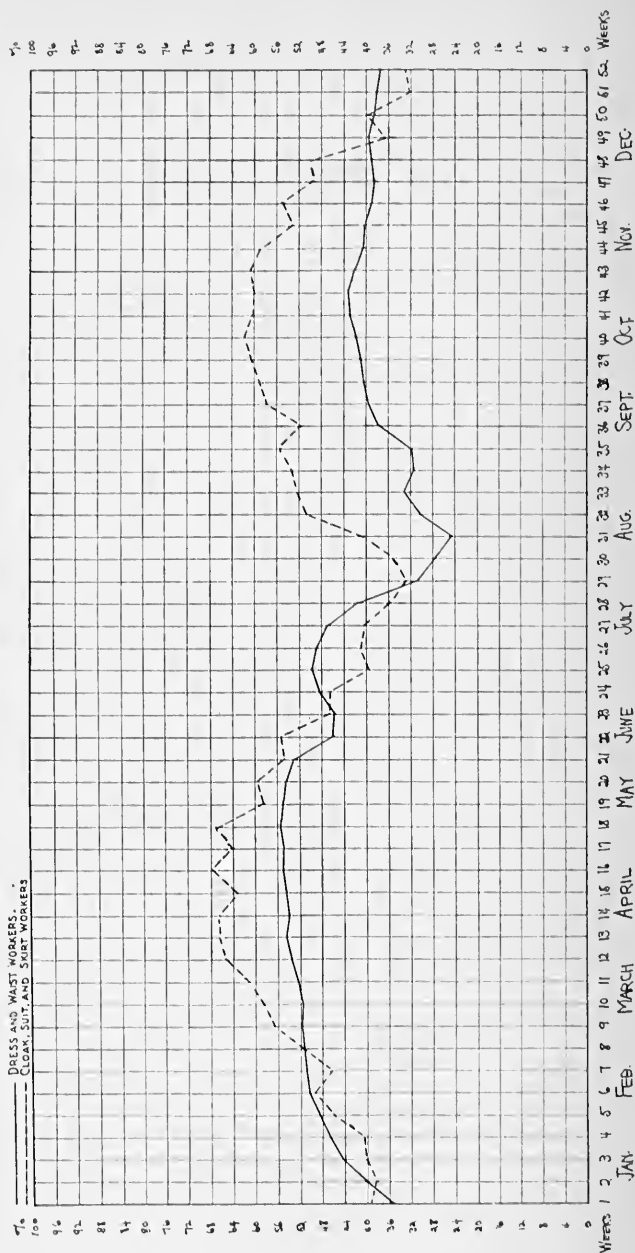


TABLE 10 (a). — *Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
14 and less than 16, .	3	2	—	—	—	—	—	—	5
16 and less than 18, .	1	15	11	8	7	2	1	—	45
18 and less than 21, .	1	11	27	39	21	27	15	8	149
21 and less than 25, .	2	7	22	43	52	42	30	43	241
25 and less than 30, .	—	1	2	11	11	19	21	20	85
30 and less than 35, .	—	—	5	4	9	8	6	15	47
35 and less than 40, .	—	1	2	11	5	8	8	9	44
40 and less than 45, .	—	1	5	5	6	3	6	6	32
45 and less than 50, .	—	1	1	6	2	4	2	3	19
50 and less than 55, .	—	—	2	—	2	2	2	7	15
55 and less than 60, .	1	—	—	—	—	2	1	—	4
60 and over, .	—	1	2	1	—	—	—	—	4
Total, . . .	8	40	79	128	115	117	92	111	690

NOTE. — Data for age were not available for 1,271 workers.

TABLE 10 (b). — *Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
14 and less than 16, .	3	5	5	5	5	5	5	—
16 and less than 18, .	1	16	27	35	42	44	45	—
18 and less than 21, .	1	12	39	78	99	126	141	8
21 and less than 25, .	2	9	31	74	126	168	198	43
25 and less than 30, .	—	1	3	14	25	44	65	20
30 and less than 35, .	—	—	5	9	18	26	32	15
35 and less than 40, .	—	1	3	14	19	27	35	—
40 and less than 45, .	—	1	6	11	17	20	26	6
45 and less than 50, .	—	1	2	8	10	14	16	3
50 and less than 55, .	—	—	2	2	4	6	8	7
55 and less than 60, .	1	1	1	1	1	3	4	—
60 and over, .	—	1	3	4	4	4	4	—
Total, . . .	8	43	127	255	370	487	579	111

NOTE. — Data for age were not available for 1,271 workers.

TABLE 11. — *Average Weekly Earnings: by Years of Experience.*

YEARS OF EXPERIENCE.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 1,	4	18	21	17	6	6	5	—	77
1 and less than 2, . .	1	8	10	17	6	6	4	2	54
2 and less than 3, . .	—	1	9	18	17	15	5	5	70
3 and less than 4, . .	—	—	15	16	21	13	10	3	78
4 and less than 5, . .	—	1	3	11	12	18	7	7	59
5 and less than 6, . .	—	2	1	7	14	10	8	15	57
6 and less than 7, . .	—	—	—	5	4	11	7	10	37
7 and less than 8, . .	—	1	1	5	4	5	5	14	35
8 and less than 9, . .	—	—	3	—	4	4	5	7	23
9 and less than 10, . .	—	—	—	1	2	—	4	6	13
10 and less than 11, . .	—	—	—	2	2	1	6	7	18
11 and less than 12, . .	—	—	—	—	2	1	—	2	5
12 and less than 13, . .	—	—	—	2	2	3	4	3	14
13 and less than 14, . .	—	—	—	—	—	2	—	1	3
14 and less than 15, . .	—	—	1	—	—	—	2	4	7
15 and over,	—	—	3	1	4	4	4	13	29
Total,	5	31	67	102	100	99	76	99	579

NOTE. — Data concerning years of experience were not available for 1,382 workers.

TABLE 12. — *Home Conditions and Average Weekly Earnings (Cumulative).*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Living at home,	8	45	112	218	308	406	482	85
Living away from home, . .	—	2	13	34	58	77	93	30
Total,	8	47	125	252	366	483	575	115

NOTE. — Data concerning home conditions were not available for 1,271 workers.

TABLE 13. — *Home Conditions for 682 Employees: by Age Groups.*

AGE.	NUMBER AND PER CENT. OF WORKERS —				TOTAL.	
	LIVING AT HOME.		LIVING AWAY FROM HOME.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
14 and less than 16, . . .	5	100.0	—	—	5	100
16 and less than 18, . . .	44	97.8	1	2.2	45	100
18 and less than 21, . . .	122	82.4	26	17.6	148	100
21 and less than 25, . . .	195	81.6	44	18.4	239	100
25 and less than 30, . . .	69	83.1	14	16.9	83	100
30 and less than 35, . . .	36	78.3	10	21.7	46	100
35 and less than 40, . . .	34	79.1	9	20.9	43	100
40 and less than 45, . . .	27	84.4	5	15.6	32	100
45 and less than 50, . . .	11	61.1	7	38.9	18	100
50 and less than 55, . . .	10	66.7	5	33.3	15	100
55 and less than 60, . . .	4	100.0	—	—	4	100
60 and over,	4	100.0	—	—	4	100
Total,	561	82.3	121	17.7	682	100

NOTE. — Data for age and home conditions were not available for 1,279 workers.

WAGES OF WOMEN IN HOSIERY AND KNIT GOODS FACTORIES IN MASSACHUSETTS.

STATISTICS OF MANUFACTURE.

The art of knitting is most generally believed to have been invented in Europe at some date not earlier than the late middle ages, and is therefore of much later origin than that of weaving. Whatever country is responsible for its invention, the process was probably soon introduced into Scotland, England and France, the first known references to it being found in English laws of the fifteenth century, which show its increasing use in that country in the manufacture of hosiery or leggins, caps, gloves and similar articles of wearing apparel.¹ It was soon recognized that the elasticity of knitted fabric makes it better adapted than woven goods for garments of this nature, which are required to fit close to the body; and in consequence wherever knitting was

¹ W. Felkin, "History of the Machine-wrought Hosiery and Lace Manufactures," London, 1867, p. 16.

introduced it was rapidly adopted as the universal household art, which it has remained to the present day.

Knitting by machine was first made possible in the year 1589, when the Rev. William Lee of Nottingham invented the stocking frame. The first important addition to Lee's frame was made in 1758 by Strutt's invention of a device for knitting a ribbed web. Hand frames modeled on the principle of Lee's invention were in general use until after 1850. It is interesting to note that the first instance of the successful application of power to the stocking frame occurred in 1832 in Cohoes, N. Y., whereas in England power frames were not generally introduced until after 1845.¹

Machine knitting in its present form is largely a product of the last half century. Progress in the invention and use of automatic flat-bed and circular knitting frames has been rapid throughout this period, and this fact, together with the introduction of a large number of specialized seaming and finishing machines, has made possible a greatly increased output of machine-made knit goods of all kinds at reduced cost, while at the same time improving the quality of the product. In 1849, the first year for which statistics of manufacture of the hosiery and knit goods industry were collected for the United States government, the census returns show the existence of 85 establishments located in 10 States, with an average number of 2,325 wage earners and a total annual output valued at about a million dollars. Within the next ten years, a period which marks the rapid development of technical improvements and the widespread introduction of power machinery, the number of factories more than doubled, while the average number of wage earners increased almost four times and the value of the product six times. As shown by the following tables the industry has developed steadily though somewhat irregularly up to the present time, its growth during the last thirty years being more rapid than that of any other of the textile industries. The increase in output has been accompanied by a still greater increase in per capita consumption of the domestic product, the expenditure per capita for

¹ United States, eighth census, Vol. 3, p. xliii.

knit goods in the year 1905 being \$1.77, while in 1880 it was only 74 cents, an increase which occurred entirely in goods of American production.¹

Manufacture of Hosiery and Knit Goods,² United States, 1849-1909.³

YEAR.	Number of Establishments.	Wage Earners (Average Number).	Wages.	Cost of Materials.	Value of Products.	Value added by Manufacture.
1909, . . .	1,374	129,275	\$44,740,223	\$110,241,053	\$200,143,527	\$89,902,474
1904, . . .	1,144	104,092	31,614,607	76,789,348	137,076,454	60,287,106
1899, . . .	1,006	83,691	24,434,497	51,195,330	95,833,692	44,638,362
1889, . . .	824	59,774	16,613,970	35,949,865	67,446,788	31,496,923
1879, . . .	398	30,699	6,839,195	15,449,991	29,613,581	14,163,590
1869, . . .	248	14,788	4,429,085	9,835,823	18,411,564	8,575,741
1859, . . .	197	9,103	1,661,972	3,202,317	7,280,606	4,078,289
1849, . . .	85	2,325	360,336	415,113	1,028,102	612,989

Increase in Value of Product, Hosiery and Knit Goods,⁴ 1849-1909.

YEAR.	Value of Product.	Amount of Increase.	Per Cent. of Increase.
1909,	\$200,143,527	\$104,309,835	108.8
1899,	95,833,692	28,386,904	42.1
1889,	67,446,788	37,833,207	127.8
1879,	29,613,581	11,202,017	60.8
1869,	18,411,564	11,130,958	152.9
1859,	7,280,606	6,252,504	608.2
1849,	1,028,102	—	—

¹ "Considering the great decrease in the cost of production and the selling price it is probably not making an exaggerated estimate to assert that the people of the United States purchased from three to four times as much machine-knit apparel, in quantity, per capita [in, 1905], as they did twenty-five years ago." — United States Census of Manufactures, 1905, Bulletin 74, p. 71.

² Including both power and hand-knit goods. "In addition, hosiery and knit goods to the value of \$2,975,749 were made by establishments engaged primarily in the manufacture of boots and shoes, rubber; clothing, men's, including shirts; clothing, women's; cotton goods, including cotton small wares; gloves and mittens, leather; hats and caps, other than felt, straw, and wool; millinery and lace goods; silk and silk goods, including throwsters; and woolen, worsted and felt goods, and wool hats." United States, thirteenth census, Vol. VIII., p. 393.

³ *Ibid.*, p. 393.

⁴ Computed from Table 64, United States, thirteenth census, Vol. VIII., p. 393.

According to the census figures for 1909,¹ New York and Pennsylvania take the lead in the knit goods industry, producing, respectively, 33.5 per cent. and 24.8 per cent. of the value of the total product for the United States. Massachusetts stands third, with 7.4 per cent. With respect to the nature of the goods manufactured, New York specializes largely in underwear, which in 1909 constituted 64 per cent. of the total value of knit goods produced in that State, while hosiery constituted 62.1 per cent. of the Pennsylvania product. Massachusetts can hardly be said to specialize in any one line, although underwear constituted 54.9 per cent. of the knit goods produced there in the year 1909.² In 1913, according to the figures given by the Massachusetts Bureau of Statistics, there were 65 establishments in the State, employing an average number of 10,739 persons, of whom 7,807, or 72.7 per cent were women, and producing goods to the value of \$16,693,510. Statistics for the years 1914 and 1915, showing the effect of the European war upon the knit goods industry in this State, are not yet available. That the export business of this industry has been greatly increased during the last year is shown by the fact that for the nine months ending Sept. 15, 1915, exports of knit goods from the United States totaled \$12,181,384, while the figures for the corresponding period of the year 1914 were \$1,927,619, and in 1913, \$2,040,934.³

¹ United States, thirteenth census, Vol. VIII., pp. 722, 723.

² Computed from United States, thirteenth census, Vol. IX., pp. 831, 1070, and 514.

³ United States, Department of Commerce, Monthly Summary of Foreign Commerce of the United States, September, 1915, p. 29.

*Manufacture of Hosiery and Knit Goods by States.*¹

STATE.	Number of Estab- lishments, 1910.	Number in Industry.	Capital.	Value of Products.
Alabama,	6	634	\$627,282	\$591,000
California,	6	316	515,170	451,970
Connecticut,	21	3,524	6,463,632	5,800,692
Delaware,	4	508	288,941	448,987
Georgia,	22	2,880	3,269,652	3,232,623
Illinois,	43	3,141	5,115,992	5,946,737
Indiana,	5	2,032	2,405,786	2,381,219
Iowa,	4	279	420,276	325,500
Maine,	5	56	128,593	78,586
Maryland,	11	1,062	929,500	1,172,325
Massachusetts,	65	10,287	12,477,388	14,736,025
Michigan,	35	2,818	3,734,803	4,029,105
Minnesota,	10	1,200	1,978,729	2,242,694
New Hampshire,	21	3,223	3,529,826	4,764,119
New Jersey,	37	2,658	3,489,294	3,810,241
New York,	360	37,673	52,582,240	67,130,296
North Carolina,	62	5,361	5,164,117	5,151,692
Ohio,	39	3,412	4,407,562	6,433,431
Pennsylvania,	464	40,248	38,989,088	49,657,506
Rhode Island,	17	1,849	2,878,478	3,865,792
South Carolina,	7	864	755,398	655,340
Tennessee,	22	3,229	3,054,790	3,565,436
Utah,	11	212	311,224	419,229
Vermont,	8	974	1,752,780	1,745,670
Virginia,	11	1,780	1,093,087	2,462,787
Wisconsin,	61	4,659	6,183,128	7,843,359
All other States, ²	17	1,251	1,094,415	1,201,136

¹ United States, thirteenth census, Vol. VIII., pp. 722, 723.² All other States embrace: Colorado, 1 establishment; Idaho, 1; Kansas, 1; Kentucky, 2; Louisiana, 1; Mississippi, 1; Missouri, 2; Nebraska, 1; Oregon, 1; Texas, 1; Washington, 3; and West Virginia, 2.

Statistics of Manufacture (Hosiery and Knit Goods).

	CENSUS RETURNS FOR 1909. ¹		Statistics of Manu- factures for 1913, Massachu- setts.
	United States.	Massachu- setts.	
1. Number of establishments,	1,374	65	65
2. Capital,	\$163,641,171	\$12,477,388	\$14,660,406
3. Value of products,	\$200,143,527	\$14,736,025	\$16,693,510
4. Value added by manufacture (product less cost of material),	\$89,902,474	\$7,764,419	\$7,884,426
5. Cost of materials used, including fuel and rent of power,	\$110,241,053	\$6,971,606	\$8,809,084
6. Expense (rent, tax, contract, other),	\$13,056,850	\$945,284	- ²
7. Salaries,	\$7,691,457	\$516,073	- ²
8. Wages,	\$44,740,223	\$3,854,828	\$4,813,407
9. Total cost,	\$175,729,583	\$12,287,791	- ²
10. Value of product less total cost,	\$24,413,944	\$2,448,234	- ²
11. Employees: —			
Number of salaried officials and clerks,	5,721	309	- ²
Average number of wage earners employed during the year.	129,275	9,941	10,739
Male, 16 years of age and over, December 15,	37,419	4,284	2,671 ³
Female, 16 years of age and over, December 15,	88,183	5,549	6,758 ³
Female, under 16 years of age, December 15,	7,892	326	1,264 ⁴

¹ United States, thirteenth census, Vol. VIII., pp. 524, 525, 722, 723.² Not taken by the Massachusetts Bureau of Statistics.³ This is the number of employees eighteen years of age and over, December 13.⁴ This is the number of employees under eighteen years of age, December 13.

*Manufacture of Hosiery and Knit Goods in Massachusetts, 1909-13.*¹

YEAR.	Estab-lish-ments.	Capital invested.	Value of Stock and Materials used.	Amount of Wages paid during the Year.	Average Yearly Earnings.	WAGE EARNERS EMPLOYED.					Value of Product.
						AVERAGE NUMBER.			Smallest Number.	Greatest Number.	
						Males.		Both Sexes.			
						Females.					
1909,	- 2	- 2	- 2	9,935	9,620	10,392	\$14,724,119
1910,	\$396.20	2,662	6,950	9,612	8,471	10,454	14,237,717
1911,	395.10	2,829	6,810	9,639	8,476	10,826	14,682,459
1912,	432.57	3,047	7,087	10,134	8,976	10,956	16,067,694
1913,	448.22	2,932	7,807	10,739	8,935	12,099	16,693,510

² No figures given.

¹ Massachusetts Statistics of Manufactures, 1909-13.

METHOD AND SCOPE OF THE INVESTIGATION.

The field work for the study of the wages of women in the hosiery and knit goods industry was carried on in the months of September, October and November, 1915. The study included 27 establishments situated in 15 cities and towns, and selected in such a manner as to be as nearly representative as possible of the several branches of the industry and of the different localities in which it is centralized. Agents of the Commission covered almost all of the important knitting centers of the State, since in addition to the above they visited 19 other establishments. Of these latter firms it was found that 9 had gone out of business or had changed hands within the last year, 5 did not at present manufacture knit goods, 3 employed only one or two women, while the remainder did not keep their pay records in such a form as to be available for the purposes of the Commission.

In each of the 27 establishments studied a transcript of the pay-roll records for each female employee was taken for a period covering the fifty-two weeks preceding the date of the initiation of the investigation. In the case of 18 factories the pay-roll data included the record of the number of hours worked each week. In as many cases as possible schedules were also filled out by the women workers themselves, in order that the Commission might have available such information as age, marital condition, living arrangements and length of experience. An inspection of the premises was also made for the purpose of studying the occupations. The results of the analysis of the schedule material will be found in the section entitled "Analysis of the Wage Situation."

In accordance with the duties of the Commission as prescribed by statute the inquiry has been limited to ascertaining wages and also, where possible, rates of payment and hours of labor for the various occupations, with such other matters as are most intimately connected with the subject of wages. This procedure has necessitated the omission of many subjects which might have proved both interesting

and valuable as matters of public knowledge in connection with the wage situation. For example, the matters of overtime, sanitation, accidents and more detailed information as to the living arrangements and expenses of the women employees have a definite bearing on the matter of wages in any given employment. Moreover, certain of these matters are under the jurisdiction of other boards and commissions in this State, and information concerning them appears from those sources from time to time. Consequently, the material gathered by the Commission is limited in scope and comprises only the data which in the experience of the Commission have proved to be most pertinent and useful in the attempt to improve the wage situation.

THE PROCESS OF MANUFACTURE.

Winding. — The raw material ordinarily comes to the knitting mill in the form of silk, woolen or cotton yarn, wound in skeins or on bobbins. Since one of the most important requirements in the production of knit goods is the free and even presentation of the yarn to the knitting machine, it is usually found necessary to rewind it upon larger cone-shaped spools known as winder-bobbins. The winding machine is equipped with two rows of spindles which revolve automatically, one composed of the cops or skeins which are to be unwound and the other of the cones which are later to be transferred to the knitting machine. Since these machines are practically automatic, the work of the winders, who are usually women, requires but little skill, and consists in replacing empty cops and filled cones and in watching for breaks in the yarn and tying the ends together.

Knitting. — Two principal types of knitting machines are in use, — the “flat-bed” and the “circular.” The flat-bed machine takes its name from the fact that the frame is flat and the fabric produced a flat web which must be seamed to be finished. These machines are now fitted with automatic devices for “fashioning,” that is, narrowing and widening the web in order to produce a shaped fabric. This type of machine, the largest of which knit from 18 to 20 stockings at a time, is used mainly for the better grades of hosiery and

underwear, the articles produced being termed "full-fashioned." Goods made on the circular machines, which knit a tubular web, are less expensive to make up, but they are usually inferior in shape and elasticity to the full-fashioned product. The process of machine knitting is in principle similar to that of hand knitting or crocheting; small metal needles automatically loop the yarn so as to produce a mesh of the desired size, elasticity and texture. In the manufacture of women's seamless hose the entire leg and foot are usually knit in one piece. Where the stocking has a ribbed top, as in the case of men's and children's hose, the ribbed portion is knit first upon a machine equipped with a double set of needles, one of which forms the face and the other the back of the webbing. The fabric is then cut into the desired lengths by hand or by a machine operated by a foot or hand lever, the operators in charge of this work being known as rib cutters. The top is then transferred stitch by stitch onto the needles of the footing machine, which knits the rest of the stocking directly onto the ribbed top. The leg and foot are thus knit in one seamless piece except that a small opening across the toe remains to be joined in another operation known as looping. On the machines of the flat-bed or Cotton type, upon which all the finer grades of hosiery are knit, the fabric is fashioned by the process of transferring the loops from the end needles a certain number of stitches towards or away from the center of the web, according to whether the goods are to be narrowed or widened. The leg is knit first from the top or widest part to the ankle, and then transferred to another machine which knits the foot web. The process of transferring is in some cases performed by a special group of operatives, but more often it is undertaken by the knitters who are in charge of the footing machines. The tubular webbing used almost exclusively in the manufacture of underwear and sweaters is produced on circular frames similar in operation to those used in the production of seamless hosiery. Full-fashioned machines are used for making sleeves and other shaped pieces for high-grade underwear. Both men and women operate circular and flat-bed machines, but in

general the larger flat-bed hosiery frames are run by men while the circular machines, with the exception of the large ones used in the production of sweaters, are usually in charge of women. These women watch from three to six machines, seeing that the bobbins are full of thread, that broken needles are replaced, and the thread fed evenly into the machine. Knitters, like winders, are obliged to stand or walk about while engaged in their work.

Looping. — Looping is a process by which edges are joined together in a seam which is almost imperceptible. Although sometimes used in the manufacture of high-grade underwear, for such purposes as making the shoulder seam or attaching the cuff to the sleeve, it is a process which plays a far more important part in the hosiery mill, since it is the sole method used in closing up the opening at the toe of the stocking. In full-fashioned hosiery the heel must also be looped. The looper consists of a continuously revolving metal disc, equipped with a row of needles around the outer edge. The two edges to be joined together are fitted stitch by stitch over each other upon the points of the disc, which is large enough to hold about a dozen stockings at a time. As the disc revolves, the two fabrics are joined together by the thread carried by a needle which passes in turn through each pair of loops, a knife trims the raw edges above the seam, and a brush cleans the seam smooth. As the stocking is brought around again before the operator she cuts the thread uniting it to its neighbor, and the finished article drops into a basket, leaving space for the adjustment of a new stocking. Looping is the most skilled occupation in which women are employed in stocking factories. The operator sits at her work, which is located in the lightest and often the most comfortable part of the factory, but which under the best conditions involves a considerable strain upon the eyes.

Dyeing. — Full-fashioned hosiery is usually dyed in the yarn, while cheaper grades are knit "in the grey," and are dyed after the completion of the looping process. The bleaching is done with peroxide or by an electrical process, colored stockings being washed and bleached before they are

dyed. They are then dried either by steam or in an extractor. The webbing used in the manufacture of underwear goes direct from the knitters to the bleaching room. After the bleaching process it is dried by being run over steam-heated tubes. Men only are employed in the occupations of dyeing and bleaching.

Boarding. — In order to shape hosiery and certain kinds of underwear the articles are boarded, that is, drawn while damp over a shaped board and dried in a hot oven. Boarding is hot and heavy work and is usually done by men.

Cutting. — After the knit goods come from the bleaching rooms they go to the hands of the cutters. The material to be used in the manufacturing of underwear is piled in layers, and with the use of a pattern the garment is cut out by shears or a power-driven cutting machine. As a rule, men guide the power machines, although some women are employed at this work as well as at the lighter processes of cutting by hand and in "rib-cutting," described above.

Machine Seaming and Finishing. — The seaming and finishing processes on underwear and full-fashioned hosiery include a number of varied operations, each usually performed by a separate worker who operates a machine especially designed for the work in hand. For full-fashioned hosiery the process consists in seaming the foot and back of the leg. For underwear the sides must be seamed, and "reseamed" or overcast, sleeves and gussets set in, and cuffs stitched on. Finishing processes include finishing necks and fronts, stitching on straps, tapes, bands and facings, making buttonholes and eyelets, and putting on buttons. The power-driven sewing machines used for these processes are always operated by women, whose work is similar to that of machine operators in other garment factories.

Hand Finishing and Embroidery. — On the highest priced goods many of the finishing and decorating processes are performed by operators who sew, embroider or crochet by hand. In the manufacture of sweaters the sleeve is sometimes crocheted into the body, while the buttons and hooks are sewn on and the collar and cuffs overcast by hand.

Taping. — Another unskilled hand process is the running of tapes into the crocheted edging at the neck and armholes of women's and children's underwear.

Mending. — The first inspection of both hosiery and underwear is usually made by menders, who go over the goods for the purpose of locating and repairing any damaged spots which can be mended.

Inspecting. — After passing through the hands of the menders the articles are usually reinspected, sometimes by the same workers, who fold them preparatory to pressing.

Pressing. — Articles to be pressed are laid in piles between sheets of pasteboard and placed in a hand or power press in order to give them a smooth and finished appearance. Both men and women are engaged in this occupation.

Folding and Boxing. — After being pressed the goods go to the final group of operatives, — women who make a last examination of each article as it is folded and packed with others for shipment.

Miscellaneous processes in connection with the manufacture of hosiery and knit goods include *turning*, or jerking right side out the stockings as they come from the knitting machine; *marking*, or *stamping* the size, number or trademark upon the finished article; *marking* the location of buttons; *buttoning* shirts; *pairing*, or mating stockings in sets of two of a kind; *giving out work*; *measuring threads*; and *general floor work*.

METHOD OF TREATING WAGE MATERIAL.

In the preparation of the material for tabulation all records of persons who appeared on the pay roll for less than four weeks out of the fifty-two under consideration were thrown out. This was done in order that the conclusions reached might apply only to workers who could legitimately be considered a part of the normal working force of the industry. Records for forewomen, clerical workers and scrub women were also excluded.

In computing weekly earnings and hours worked each

week for individual workers the procedure for each individual was as follows: the sum of all payments made during the fifty-two-week period — that is, the girl's total income from her work for the year — was found. This sum was divided by the number of weeks during which she was actually at work, as indicated by the number of weekly payments made to her. Where the weekly pay roll showed a record of time worked for which no wages were paid, the week in question has been counted as a week actually worked. In this way the average weekly earnings of each employee for the time she was at work in the occupation under consideration were ascertained. A corresponding procedure was adopted in treating hours of work. The number of hours recorded during the fifty-two-week period was totaled, and this sum divided by the number of weeks for which hours were recorded. In cases where hours were given for only a small and unrepresentative portion of the total number of weeks worked, the item of hours was excluded from tabulation as not accurately indicating the actual weekly average of hours worked throughout the entire period of employment. It should be noted that the amounts paid were not always the equal of a full week's work. Since the wage records rarely show the cause of short hours and small payments, it is impossible to avoid a slight inaccuracy in the analysis of earnings, due to the fact that in some cases girls enter and leave the factory in the middle of a week, and a few of these may therefore appear to receive a lower average weekly wage than they actually do. This misinterpretation is unavoidable, since the Commission has made it a rule to present the pay-roll figures as found, without omissions or additions due to interpretations of its own.

ANALYSIS OF THE WAGE SITUATION.

Table 1, (a) and (b), shows the weekly earnings, classified according to occupations, of the 3,460 women for whom wage data were obtained. Of the total number two-fifths (40.7 per cent.) earned less than \$6 a week, while about three-quarters (74.3 per cent.) earned less than \$8 a week. Two-thirds (65.7 per cent.) fall into the groups earning between \$5

and \$8. The lowest paid occupations, rated according to the percentage of those earning under \$6, are rib-cutting and taping, with 75 per cent. and 73.1 per cent., respectively, both of them being unskilled occupations in which only a small number of women are engaged. Of the occupations employing large numbers of women, those for which the lowest weekly earnings are recorded are knitting, winding and hand finishing, in each of which groups almost half of the workers received less than \$6. The most highly paid of the specified occupations, rated according to the percentage earning \$8 or more, are cutting (50 per cent.), machine seaming and finishing (34.3 per cent.) and folding and boxing (31.8 per cent.). The largest occupational class, the machine operators, comprises a number of distinct groups of workers performing dissimilar operations which require different degrees of skill. These had to be grouped together because of the fact that in a number of establishments all machine operators are classed together as "stitchers" without further specification. Table 1 (c) shows the 427 machine operators whose occupations are further specified grouped, according to average weekly earnings, in the two main divisions of seamers and finishers. Wages in the two groups parallel each other closely, although there are more high-paid and fewer low-paid persons employed in the finishing operations.

Out of the total number of 3,460 women whose records were tabulated, 2,987, or 86.3 per cent., were pieceworkers or time workers for whom only hourly rates were available. Persons paid according to time rates are in this industry restricted to a few unrepresentative occupations, and for this reason a table showing the weekly rates of payment for the small number for whom such data were available has not been prepared, since it would be in no way comparable with the tables showing weekly earnings for the total number of women employed in the industry.

According to Table 2, which shows the total income received by each worker for the time employed during the fifty-two-week period in the establishments investigated, it will be seen that the largest single group, consisting of 944 individuals, or 27.3 per cent. of the total number, earned less

than \$100 a year, while 1,800, or 52 per cent., earned less than \$250. Thus, computed on a fifty-two-week basis, over a quarter earned an average wage of less than \$2 a week, while over half earned less than \$5. Only 583, or 16.8 per cent., earned over \$400, \$416 being the annual income of a worker receiving a weekly wage of \$8 who has steady employment. Since this study has been limited to the pay-roll data as presented by individual establishments in the knit goods industry, and no information is available regarding the complete industrial record for the individual workers for the fifty-two-week period, it is not possible to state to what extent this condition of low annual earnings is due to employment in other establishments or industries, and to what extent to actual unemployment. Undoubtedly a considerable amount, especially in the smaller towns where industrial openings are few, is due to the latter cause. The question of how much of the unemployment is voluntary with the workers, and how much due to their being laid off during dull seasons and to the lack of opportunity for employment, is another matter concerning which the Commission has no accurate information.

An analysis of the weekly wages paid by different establishments is presented in Table 3, which shows the wide divergence in actual earnings, not only in different branches of the industry, but also between individual establishments manufacturing the same general lines and grades of goods. The firms manufacturing underwear in general paid considerably higher wages than those producing hosiery, sweaters and miscellaneous products, only 26 per cent. of the women employed in underwear factories receiving less than \$6 a week, as against 48.4 and 49.4 per cent. in the two other groups, respectively, and 40.7 per cent. in the industry as a whole. Among the underwear firms the number receiving less than \$6 a week varies from 6.2 to 60.2 per cent., while the number receiving over \$9 varies from 2.3 to 65.4 per cent. It will be noted that similar extreme variations exist in the case of the hosiery concerns ranging from establishment No. 5, where 73.2 per cent. received under \$6, to establishment No. 1, where the corresponding figure is only

27.6 per cent. The firms manufacturing sweaters and miscellaneous products have still lower wages, rated according to the number receiving less than \$6, and also show a wide variation between individual firms, the number receiving less than \$6 ranging from 88.9 and 90 per cent. to 15 and 17.9 per cent. These differences in the wage scales of the individual factories can be accounted for in part by the fact that the industry is so far subdivided that each individual establishment makes only one special line of goods, and is therefore affected by trade and labor conditions which do not necessarily influence other firms in the same branch of the industry even if situated in the same locality.

One of the most important causes of the variations in wages paid in different establishments is revealed by Table 4, which presents the data regarding the average number of hours worked per week by women employed in 18 of the 27 establishments studied. This table shows that in general the establishments in each group having the largest number of female employees who receive an average wage of under \$6 are recorded as having the shortest average running time, whereas the establishments paying the highest wages work their employees for the longest number of hours. Among the underwear firms, for example, in establishment No. 8, which is recorded as paying the lowest wages, 91.9 per cent. of the employees worked an average of less than thirty-eight hours per week, while in the most highly paid establishments for which hourly records were available it will be seen that no employees, or only a very small percentage, worked less than thirty-eight hours. The same is true of the hosiery firms, thereby explaining the wide divergence between the average weekly earnings in firms known to manufacture almost exactly similar lines of goods. However, while differences are so great between individual firms, the average running time for the three main divisions of the industry present far less variation from each other and from the figures for the industry as a whole.

The relation between low wages and short hours of labor is further indicated by Table 5, (a) and (b), which shows the workers in the different wage groups classified according to

the average number of hours worked per week. Data regarding hours of labor are of especial value in the study of this industry because of the unusually large percentage of workers — over two-thirds of the total number studied — for whom records of hours were available.

According to Tables 6 and 7, which analyze the fluctuation of employment according to occupation and establishment, 7.5 per cent. of the total number of women included in the study found employment for the whole year, 37.5 worked eleven months, while over half (51.9 per cent.) were employed for nine months. The variation in steadiness of employment between the different occupations is not strikingly marked, cutting and mending ranking highest, boarding, taping, pressing and winding ranking lowest, while those occupations most characteristic of the industry, — knitting, looping and machine operating, — run close to the average for the industry as a whole. Table 7 shows that in the period under consideration the underwear factories provided the most steady work for their employees, 43.8 per cent. of whom worked over eleven months, and 61.8 per cent. over nine months. The figures in the hosiery firms closely approximate those for the industry as a whole, while the sweater and miscellaneous establishments, which produce goods of a more seasonal character than either of the two other groups, afford steady employment to a much smaller proportion of their employees. There is a considerable variation between different establishments, and in certain instances it is possible, as in the case of establishments Nos. 7, 13, 16, 22 and 25, to trace a relation between wages and duration of employment. In other cases, however, such as that of most of the stocking firms, steadiness of employment seems to bear little relation to the wage factor.

Diagram I shows in graphic form the per cent. of the total number of women included in the investigation who were employed in each week of the year in the three branches of the industry. The curve shows no marked seasonal fluctuation for the industry as a whole, the general depression in the month of July indicating the vacation period rather than slack business. Steadiness of employment is less marked in the manufacture of sweaters and miscellaneous goods than in

the other lines, a fact which can be explained by the greater seasonal demand of this branch of the business, as well as by the fact that the firms manufacturing these lines are in most cases smaller and less well organized than the hosiery and underwear establishments.

We see from Table 8, (a) and (b), that this industry follows the general tendency to employ women between the ages of sixteen and thirty-five. Of the 1,680 women for whom information regarding wages was available, 1,390, or 82.7 per cent., were at this period of life; 832, or 49.5 per cent., being between eighteen and twenty-five years old. The figures indicate a general tendency for earning capacity to increase with years up to the age of forty.

Of those persons for whom the Commission secured data regarding living conditions (Tables 10 and 11), 178, or 10.6 per cent., lived away from home, that is, in lodging or boarding houses. The rest either lived at home or with relatives, many of them contributing to the household expenses, and some undoubtedly partially or wholly responsible for the support of other members of their family as well as of themselves. Table 10 shows that 33.7 per cent. of the girls living at home earn under \$6, while only 24.5 per cent. of those away from home fall in these wage groups.

SUMMARY OF ANALYSIS.

A summary of the results of the investigation into the wages of women in the hosiery and knit goods industry shows that of the total number employed during the fifty-two-week period included in the study, 40.7 per cent. earned less than \$6 a week and 27.3 per cent. earned less than \$100 a year. The records show a low average for hours of employment, 56.7 per cent. working less than forty-two hours per week. This situation is doubtless due somewhat to the unsettled trade conditions resulting from the European war. That this industry is not markedly seasonal in character is shown by the fact that 51.9 per cent. have employment for over nine months of the year. Out of the total number for whom data regarding living conditions were obtained, 10.6 per cent. were recorded as living away from home.

TABLE 1 (a). — *Average Weekly Earnings: by Occupations.*

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —															
	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Machine seaming and finishing,	32	4.1	37	4.7	87	11.1	107	13.7	132	16.9	119	15.2	121	15.5	147	18.8
Knitting,	43	6.1	79	11.2	92	13.1	125	17.8	155	22.1	131	18.7	59	8.4	18	2.6
Looping and transferring,	15	3.9	27	7.1	51	13.5	65	17.1	70	13.3	68	17.9	54	14.2	30	7.9
Winding,	17	2.5	28	10.0	39	13.9	60	21.3	75	26.7	29	10.3	25	8.9	18	6.4
Mending,	14	8.5	16	9.8	13	7.9	21	12.8	29	17.7	26	15.9	21	12.8	24	14.6
Inspecting,	1	.7	7	5.2	17	12.6	31	23.0	18	13.3	26	19.3	9	6.6	26	19.3
Hand finishing and embroidery,	4	3.1	9	7.0	18	14.1	30	23.4	22	17.2	17	13.3	13	10.2	15	11.7
Folding and boxing,	2	1.8	8	7.3	6	5.4	15	13.6	27	24.5	17	15.5	17	15.5	18	16.4
Cutting,	—	—	1	2.1	3	6.3	4	8.3	10	20.8	6	12.5	7	14.6	17	35.4
Pressing,	—	—	2	5.4	2	5.4	12	32.5	7	18.9	5	13.5	5	13.5	4	10.8
Boarding,	1	3.4	3	10.4	8	27.6	4	13.8	8	27.6	3	10.4	1	3.4	1	3.4
Taping,	1	3.9	7	26.9	5	19.2	6	23.1	—	—	1	3.9	3	11.5	3	11.5
Rib-cutting,	2	8.3	1	4.2	7	29.2	8	33.3	4	16.7	2	8.3	—	—	—	—
Miscellaneous,	20	6.3	37	11.7	58	18.3	65	20.5	51	16.1	41	12.9	34	10.7	11	3.5
Occupation not specified,	4	1.3	1	.3	14	4.7	26	8.8	25	8.4	40	13.5	54	18.2	133	44.8
Total,	146	4.2	263	7.6	420	12.2	579	16.7	633	18.3	531	15.4	423	12.2	465	13.4
															3,460	100

TABLE 1 (b). — *Average Weekly Earnings: by Occupations (Cumulative).*

OCCUPATIONS.	PER CENT. OF WORKERS EARNING —									
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.		
Machine seaming and finishing,	4.1	8.8	19.9	33.6	50.5	65.7	81.2	18.8		
Knitting,	6.1	17.4	30.5	48.3	70.4	89.0	97.4	2.6		
Looping and transferring,	3.9	11.1	24.5	41.6	60.0	77.9	92.1	7.9		
Winding,	2.5	12.5	26.3	47.7	74.4	84.7	93.6	6.4		
Inspecting,	8.5	18.3	26.2	39.0	56.7	72.6	85.4	14.6		
Mending, . . . . .	.7	5.9	18.5	41.5	54.8	74.1	80.7	19.3		
Hand finishing and embroidery,	3.1	10.2	24.2	47.7	64.8	78.1	88.3	11.7		
Folding and boxing,	1.8	9.1	14.5	28.2	52.7	68.2	83.6	16.4		
Cutting,	-	2.1	8.3	16.7	37.5	50.0	64.6	35.4		
Pressing,	-	5.4	10.8	43.2	62.2	75.7	89.2	10.8		
Boarding,	3.4	13.8	41.4	55.2	82.8	93.1	96.6	3.4		
Taping,	3.8	30.8	50.0	73.1	73.1	76.9	88.5	11.5		
Rib-cutting,	8.3	12.5	41.7	75.0	91.7	100.0	100.0	-		
Miscellaneous,	6.3	18.0	36.3	56.8	72.9	85.8	96.5	3.5		
Occupation not specified,	1.3	1.7	6.4	15.2	23.6	37.0	55.2	44.8		
Total,	4.2	11.8	24.0	40.7	59.0	74.3	86.6	13.4		

TABLE 2. — *Annual Earnings; by Occupations.*

OCCUPATIONS.	NUMBER OF WORKERS WITH ANNUAL EARNINGS OF —										Total.
	Under \$100.	\$100 and under \$150.	\$150 and under \$200.	\$200 and under \$250.	\$250 and under \$300.	\$300 and under \$350.	\$350 and under \$400.	\$400 and under \$450.	\$450 and under \$500.	\$500 and over.	
Machine seaming and finishing,	212	67	49	52	71	83	87	64	41	56	782
Knitting,	187	57	72	74	90	100	82	33	6	1	702
Looping and transferring,	100	33	29	21	52	52	39	34	13	7	380
Winding,	94	32	31	32	23	25	15	17	5	7	281
Inspecting,	55	14	7	16	11	13	21	16	2	9	164
Mending,	29	12	11	11	13	17	17	12	8	5	135
Hand finishing and embroidery,	41	15	10	13	16	5	13	9	2	4	128
Folding and boxing,	23	11	10	13	8	16	9	11	2	4	110
Cutting,	8	5	4	4	2	1	5	8	4	7	48
Pressing,	10	8	2	4	3	5	3	1	2	1	37
Boarding,	14	2	2	2	2	4	2	1	—	—	29
Taping,	14	1	—	4	1	4	1	1	2	1	26
Rib-cutting,	8	1	—	3	7	3	1	—	—	—	24
Miscellaneous,	114	24	25	31	38	25	27	20	9	4	317
Occupation not specified,	35	21	11	14	21	20	29	50	52	44	297
Total,	944	303	266	287	356	370	351	277	154	152	3,460

TABLE 3. — *Average Weekly Earnings: by Establishments (Cumulative).**Hosiery.*

ESTABLISHMENTS.	PER CENT. OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
No. 1,	3.4	8.9	14.7	27.6	47.4	71.2	92.8	7.2
No. 2,	8.1	16.8	35.1	57.0	75.1	89.9	96.3	3.7
No. 3,	2.6	9.7	25.3	56.2	82.1	95.5	99.4	.6
No. 4,	3.1	8.7	19.3	35.4	49.6	67.3	80.3	19.7
No. 5,	9.2	33.5	50.9	73.2	92.1	98.7	100.0	—
No. 6,	2.0	15.2	29.3	49.5	66.7	84.8	96.0	4.0
Total,	5.1	14.6	28.8	48.4	67.3	84.0	94.1	5.9

Underwear.

No. 7,	1.3	1.7	6.4	15.2	23.6	37.0	55.2	44.8
No. 8,	9.1	21.0	38.6	60.2	81.3	93.2	97.7	2.3
No. 9,	—	2.0	5.2	20.9	37.3	60.1	79.7	20.3
No. 10,	1.6	8.1	20.3	29.3	47.2	63.4	82.9	17.1
No. 11,	1.0	2.9	9.6	20.2	50.0	70.2	85.6	14.4
No. 12,	—	2.2	8.8	22.0	33.0	54.9	78.0	22.0
No. 13,	—	1.2	4.9	6.2	9.9	19.8	34.6	65.4
No. 14,	3.1	7.7	20.0	40.0	64.6	76.9	87.7	12.3
No. 15,	—	5.8	13.5	25.0	34.6	53.8	75.0	25.0
No. 16,	—	2.1	6.4	10.6	27.7	44.7	66.0	34.0
No. 17,	7.7	11.5	19.2	26.9	42.3	65.4	73.1	26.9
Total,	2.2	6.0	14.0	26.0	41.3	57.5	73.6	26.4

Sweaters, Athletic Goods and Miscellaneous Products.

No. 18,	1.4	9.4	25.4	45.7	68.8	82.6	94.2	5.8
No. 19,	3.9	16.3	31.7	47.1	63.5	76.0	89.4	10.6
No. 20,	11.3	26.3	48.8	71.3	87.5	93.8	98.7	1.3
No. 21,	—	1.5	4.8	25.4	59.7	74.6	85.1	14.9
No. 22,	33.3	62.2	80.7	88.9	95.6	97.8	97.8	2.2
No. 23,	—	—	—	17.9	50.0	64.3	78.6	21.4
No. 24,	—	10.0	55.0	90.0	100.0	100.0	100.0	—
No. 25,	—	—	5.0	15.0	80.0	85.0	90.0	10.0
No. 26,	12.5	12.5	12.5	31.3	37.5	50.0	75.0	25.0
No. 27,	—	—	16.7	33.3	50.0	50.0	100.0	—
Total,	6.1	16.0	31.3	49.4	71.2	81.7	91.8	8.2
Total of all establishments.	4.2	11.8	24.0	40.7	59.0	74.3	86.6	13.4

TABLE 4.—*Hours of Labor: by Establishments (Cumulative).**Hosiery.*

ESTABLISHMENTS.	PER CENT. OF WORKERS WORKING —							
	Less than 30 Hours.	Less than 34 Hours.	Less than 38 Hours.	Less than 42 Hours.	Less than 46 Hours.	Less than 50 Hours.	Less than 54 Hours.	54 Hours and over.
No. 1,	2.4	3.6	8.5	19.6	50.8	85.7	100.0	—
No. 2,	2.5	3.7	25.7	79.0	93.3	97.0	100.0	—
No. 3,	5.2	19.9	45.6	87.3	97.7	100.0	100.0	—
No. 4,	2.0	11.2	31.9	57.8	82.1	98.0	100.0	—
No. 6,	5.1	14.1	23.2	54.5	75.8	92.9	100.0	—
Total,	3.1	9.0	25.9	58.8	79.2	94.4	100.0	—

Underwear.

No. 7, . . . .	.3	3.1	9.2	55.3	91.9	97.6	100.0	—
No. 8,	34.7	68.2	91.9	98.3	100.0	100.0	100.0	—
No. 10, . . . .	.8	1.6	3.3	13.0	37.4	87.8	100.0	—
No. 11,	—	—	—	16.1	25.8	83.9	100.0	—
No. 12,	—	—	—	13.3	33.3	66.7	100.0	—
No. 14,	7.1	7.1	7.1	35.7	78.6	100.0	100.0	—
No. 16,	—	—	—	2.1	12.8	78.7	100.0	—
No. 17,	20.0	20.0	48.0	76.0	100.0	100.0	100.0	—
Total,	9.4	18.7	28.1	52.7	75.4	94.2	100.0	—

Sweaters, Athletic Goods and Miscellaneous Products.

No. 20,	16.7	28.2	55.1	83.3	100.0	100.0	100.0	—
No. 21,	2.8	2.8	2.8	5.6	13.9	52.8	94.4	5.6
No. 23,	—	—	7.7	15.4	53.8	92.3	100.0	—
No. 24,	—	—	14.3	71.4	100.0	100.0	100.0	—
No. 27,	16.7	16.7	33.3	33.3	33.3	83.3	100.0	—
Total,	10.7	17.1	34.3	54.3	79.7	86.4	98.6	1.4
Total of all establishments.	5.5	12.5	27.1	56.7	77.5	93.8	99.9	.1

NOTE.—Data concerning hours were not available in 9 establishments.

TABLE 5 (a).—*Hours of Labor and Average Weekly Earnings.*

AVERAGE HOURS PER WEEK.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 30, . . .	18	23	28	29	15	11	3	2	129
30 and less than 34, . .	10	21	27	39	37	17	9	3	163
34 and less than 38, . .	35	31	66	67	61	41	18	22	341
38 and less than 42, . .	19	44	81	145	128	117	68	89	691
42 and less than 46, . .	8	16	38	67	107	76	89	87	488
46 and less than 50, . .	2	12	25	60	71	76	72	63	381
50 and less than 54, . .	2	7	12	19	26	34	25	17	142
54 and over, . . .	—	—	—	—	1	1	—	—	2
Total, . . .	94	154	277	426	446	373	284	283	2,337

NOTE. — Data concerning hours were not available for 1,123 workers.

TABLE 5 (b).—*Hours of Labor and Average Weekly Earnings (Cumulative).*

AVERAGE HOURS PER WEEK.	PER CENT. OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Less than 30, . . .	14.0	31.8	53.5	76.0	87.6	96.1	98.4	1.6
30 and less than 34, . .	6.1	19.0	35.6	59.5	82.2	92.6	98.2	1.8
34 and less than 38, . .	10.3	19.4	38.7	58.4	76.2	88.3	93.5	6.5
38 and less than 42, . .	2.7	9.1	20.8	41.8	60.3	77.3	87.1	12.9
42 and less than 46, . .	1.6	4.9	12.7	26.4	48.4	63.9	82.2	17.8
46 and less than 50, . .	.5	3.7	10.2	26.0	44.6	64.6	83.5	16.5
50 and less than 54, . .	1.4	6.3	14.8	28.2	46.5	70.4	88.0	12.0
54 and over, . . .	—	—	—	—	50.0	100.0	100.0	—
Total, . . .	4.0	10.6	22.5	40.7	59.8	75.7	87.9	12.1

NOTE. — Data concerning hours were not available for 1,123 workers.

TABLE 6. — *Fluctuation of Employment among 3,460 Workers: by Occupations.*

OCCUPATIONS.	PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS —											
	12	11	10	9	8	7	6	5	4	3	2	1
Machine seaming and finishing,	10.4	34.3	47.1	50.5	53.6	58.4	62.9	67.4	73.9	79.5	86.4	100
Knitting,	8.0	38.5	50.1	54.7	60.0	64.0	69.4	72.2	77.5	83.2	90.2	100
Looping and transferring,	4.2	33.9	49.2	53.9	58.9	60.8	65.8	70.3	74.5	80.8	87.1	100
Winding,	6.0	26.3	37.0	42.0	47.3	52.0	55.2	58.7	65.8	76.2	82.2	100
Inspecting,	1.2	32.9	42.7	45.1	50.0	52.4	57.3	61.6	68.3	70.7	76.2	100
Mending,	17.0	44.4	54.8	58.5	60.7	67.4	70.4	74.8	79.3	83.0	88.9	100
Hand finishing and embroidery,	7.8	31.3	38.3	43.0	46.1	52.3	56.3	59.4	64.1	74.2	86.7	100
Folding and boxing,	4.5	42.7	48.2	51.8	54.5	60.0	71.8	75.5	79.1	82.7	89.1	100
Cutting,	2.1	45.8	60.4	60.4	62.5	62.5	70.8	72.9	83.3	87.5	91.7	100
Pressing,	5.4	24.3	35.1	37.8	43.2	48.6	51.4	56.8	73.0	81.1	83.8	100
Boarding,	10.3	20.7	31.0	31.0	31.0	34.5	41.4	51.7	59.6	72.4	86.2	100
Taping,	—	23.1	26.9	34.6	38.5	42.3	42.3	42.3	65.4	76.9	80.8	100
Rib-cutting,	—	37.5	54.2	62.5	62.5	66.7	66.7	66.7	70.8	70.8	75.0	100
Miscellaneous,	13.2	39.7	46.7	48.9	52.7	57.4	60.6	63.1	68.8	74.8	84.5	100
Occupation not specified, . . . . .	.3	53.2	62.6	66.7	70.7	76.4	78.8	81.5	87.5	91.2	93.6	100
Total,	7.5	37.5	48.0	51.9	56.0	60.3	64.8	68.4	74.4	80.3	87.0	100

TABLE 7. — *Fluctuation of Employment among 3,460 Workers: by Establishments.*
Hosiery.

ESTABLISHMENTS.		PER CENT. OF WORKERS EMPLOYED FOR SPECIFIED NUMBER OF MONTHS.											
		12	11	10	9	8	7	6	5	4	3	2	1
No. 1,	.	.5	37.7	43.0	45.0	48.8	50.7	55.0	58.9	65.1	71.6	80.3	100
No. 2,	.	—	45.7	52.8	58.0	63.0	65.4	70.4	75.3	78.0	83.0	91.9	100
No. 3,	.	20.8	50.0	59.1	63.6	68.2	72.7	77.3	78.9	83.4	86.7	92.0	100
No. 4,	.	3.1	25.2	46.9	53.5	59.8	65.0	70.5	73.2	76.4	84.6	91.7	100
No. 5,	.	23.8	40.6	44.4	46.9	49.0	55.2	61.5	66.5	75.3	82.4	87.0	100
No. 6,	.	3.0	12.1	19.2	24.2	34.3	39.4	42.4	42.4	51.5	65.7	79.8	100
Total,	.	7.8	38.9	47.6	51.7	56.4	60.2	65.1	68.6	73.7	80.1	87.7	100

Underwear.

No. 7,	.	.3	53.2	62.6	66.7	70.7	76.4	78.8	81.5	87.5	91.2	93.6	100
No. 8,	.	31.8	48.9	59.7	64.2	65.3	72.2	74.4	77.3	81.8	86.4	91.5	100
No. 9,	.	—	28.8	58.2	61.7	69.9	77.8	79.7	84.3	88.2	90.8	95.4	100
No. 10,	.	.8	22.0	36.6	38.2	41.5	43.1	51.2	55.3	64.2	69.9	70.7	100
No. 11,	.	1.0	57.7	67.3	70.2	72.1	75.0	79.8	83.7	89.4	94.2	95.2	100
No. 12,	.	14.3	51.6	57.1	59.3	61.5	63.7	69.2	74.7	82.4	89.0	94.5	100
No. 13,	.	1.2	54.3	65.4	66.7	67.9	69.1	72.8	75.3	79.0	79.0	84.0	100
No. 14,	.	18.5	36.9	46.2	49.2	52.3	56.9	60.0	63.1	69.2	83.1	86.2	100
No. 15,	.	—	25.0	55.8	61.5	71.2	75.0	76.9	76.9	80.8	88.5	90.4	100
No. 16,	.	—	55.3	70.2	72.3	78.7	85.1	89.4	93.6	95.7	97.9	97.9	100
No. 17,	.	—	7.7	42.3	57.7	65.4	65.4	65.4	65.4	65.4	65.4	65.4	100
Total,	.	7.0	43.8	57.9	61.8	65.3	70.9	73.5	76.8	82.2	86.7	89.8	100

Underwear.

DIAGRAM I.

Curve showing Per Cent. of Employment for Women Workers in Hosiery, Underwear and Sweater and Miscellaneous Factories.

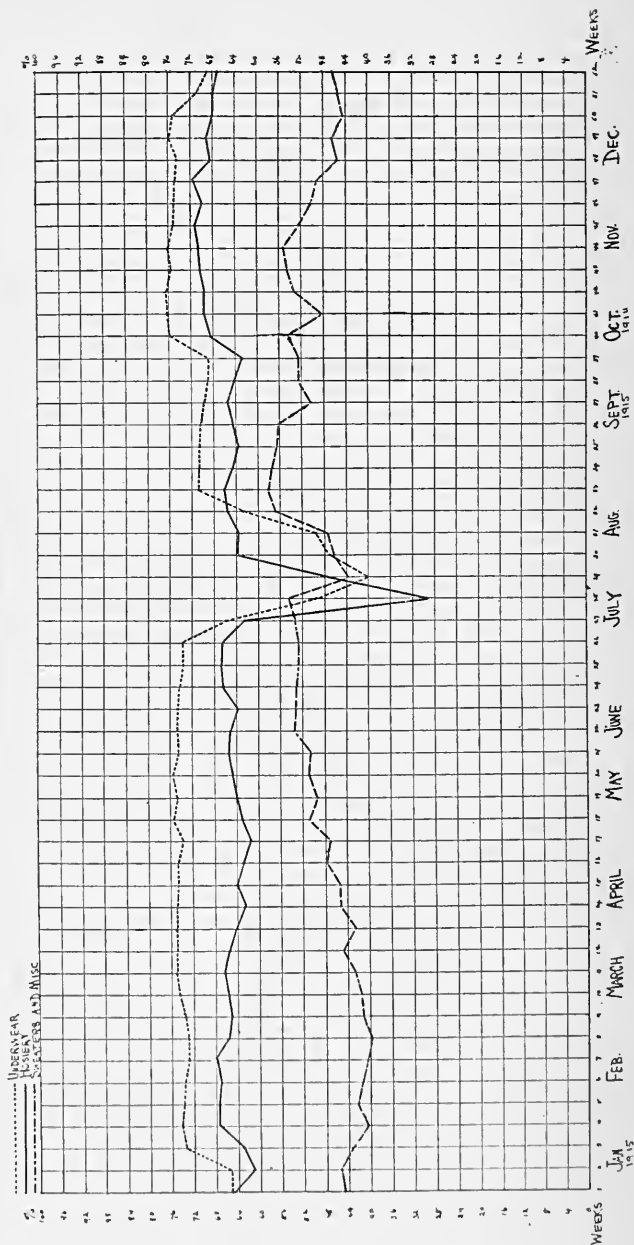


TABLE 8 (a). — *Average Weekly Earnings: by Age Groups.*

AGE.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
14 and less than 16, .	13	20	9	8	—	—	—	—	50
16 and less than 18, .	3	33	49	59	31	21	8	3	207
18 and less than 21, .	2	14	37	70	93	88	63	33	400
21 and less than 25, .	2	11	41	63	103	79	70	63	432
25 and less than 30, .	3	2	13	25	43	51	47	48	232
30 and less than 35, .	—	2	6	10	25	21	25	30	119
35 and less than 40, .	—	—	3	10	15	21	12	22	83
40 and less than 45, .	1	1	4	14	8	14	10	11	63
45 and less than 50, .	—	3	2	12	9	7	4	8	45
50 and less than 55, .	—	—	4	2	6	7	2	3	24
55 and less than 60, .	—	2	1	4	5	1	1	1	15
60 and over, . . .	—	1	3	1	3	1	—	1	10
Total, . . .	24	89	172	278	341	311	242	223	1,680

NOTE. — Data for age were not available for 1,780 workers.

TABLE 8 (b). — *Average Weekly Earnings: by Age Groups (Cumulative).*

AGE.	NUMBER OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
14 and less than 16, .	13	33	42	50	50	50	50	—
16 and less than 18, .	3	36	85	144	175	196	204	3
18 and less than 21, .	2	16	53	123	216	304	367	33
21 and less than 25, .	2	13	54	117	220	299	369	63
25 and less than 30, .	3	5	18	43	86	137	184	48
30 and less than 35, .	—	2	8	18	43	64	89	30
35 and less than 40, .	—	—	3	13	28	49	61	22
40 and less than 45, .	1	2	6	20	28	42	52	11
45 and less than 50, .	—	3	5	17	26	33	37	8
50 and less than 55, .	—	—	4	6	12	19	21	3
55 and less than 60, .	—	2	3	7	12	13	14	1
60 and over, . . .	—	1	4	5	8	9	9	1
Total, . . .	24	113	285	563	904	1,215	1,457	223

NOTE. — Data for age were not available for 1,780 workers.

TABLE 9. — *Average Weekly Earnings: by Years of Experience.*

YEARS OF EXPERIENCE.	NUMBER OF WORKERS EARNING —								Total.
	Under \$3.	\$3 and under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.	
Less than 1,	14	38	40	33	26	16	6	3	176
1 and less than 2, . .	3	13	18	27	27	15	10	5	118
2 and less than 3, . .	1	9	18	40	43	38	30	11	190
3 and less than 4, . .	1	3	19	37	31	42	32	22	187
4 and less than 5, . .	1	1	6	16	29	36	33	17	139
5 and less than 6, . .	—	1	3	9	17	18	22	19	89
6 and less than 7, . .	—	2	3	7	23	17	11	30	93
7 and less than 8, . .	—	1	—	5	11	8	13	19	57
8 and less than 9, . .	—	—	—	5	12	7	15	14	53
9 and less than 10, . .	—	1	3	2	9	11	5	8	39
10 and less than 11, . .	1	—	1	1	13	11	11	15	53
11 and less than 12, . .	—	—	1	5	5	4	7	9	31
12 and less than 13, . .	—	—	—	4	7	10	9	13	43
13 and less than 14, . .	—	—	—	1	4	3	5	6	19
14 and less than 15, . .	—	—	3	2	4	3	*2	7	21
15 and over,	—	1	8	14	19	25	17	26	110
Total,	21	70	123	208	280	264	228	224	1,418

NOTE. — Data concerning years of experience were not available for 2,042 workers.

TABLE 10. — *Home Conditions and Average Weekly Earnings (Cumulative).*

HOME CONDITIONS.	NUMBER OF WORKERS EARNING —							
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	\$9 and over.
Living at home, . . .	23	111	273	526	836	1,126	1,343	217
Living away from home,	1	2	15	45	87	124	158	26
Total,	24	113	288	571	923	1,250	1,501	243

NOTE. — Data concerning home conditions were not available for 1,716 workers.

TABLE 11. — *Home Conditions for 1,676 Employees: by Age Groups.*

AGE.	NUMBER AND PER CENT. OF WORKERS —				TOTAL.	
	LIVING AT HOME.		LIVING AWAY FROM HOME.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
14 and less than 16, . .	50	100.0	—	—	50	100
16 and less than 18, . .	202	97.6	5	2.4	207	100
18 and less than 21, . .	373	93.5	26	6.5	399	100
21 and less than 25, . .	373	86.9	56	13.1	429	100
25 and less than 30, . .	200	86.2	32	13.8	232	100
30 and less than 35, . .	104	87.4	15	12.6	119	100
35 and less than 40, . .	69	83.1	14	16.9	83	100
40 and less than 45, . .	52	82.5	11	17.5	63	100
45 and less than 50, . .	38	84.4	7	15.6	45	100
50 and less than 55, . .	17	70.8	7	29.2	24	100
55 and less than 60, . .	13	86.7	2	13.3	15	100
60 and over,	7	70.0	3	30.0	10	100
Total,	1,498	89.4	178	10.6	1,676	100

NOTE. — Data for age and home conditions were not available for 1,784 workers.

FINANCIAL STATEMENT.

Appropriations:—

Salaries and expenses of the commissioners, .	\$2,000 00	
Salary of the secretary,	2,000 00	
Clerical assistance,	3,200 00	
Salaries of investigators,	4,000 00	
Compensation and expenses of wage boards, .	2,500 00	
Office rent,	1,600 00	
Traveling and contingent expenses, . . .	2,600 00	
	<hr/>	\$17,900 00

Expenditures:—

Salaries and expenses of the commissioners, .	\$1,999 83	
Salary of the secretary,	2,000 00	
Clerical assistance,	3,197 00	
Salaries of investigators,	3,999 16	
Compensation and expenses of wage boards, .	2,499 89	
Office rent,	1,599 96	
Traveling and contingent expenses:—		
Traveling expenses,	\$331 85	
Telephone and telegraph,	188 09	
Express and messenger,	18 96	
Stationery and office supplies,	456 65	
Printing,	1,094 10	
Postage,	286 61	
Books, periodicals, clippings,	108 19	
Miscellaneous,	115 55	
	<hr/>	2,600 00
		<hr/>
		\$17,895 84

Unexpended balance reverting to State treasury:—

Salaries and expenses of commissioners,	\$0 17	
Clerical assistance,	3 00	
Salaries of investigators,	84	
Compensation and expenses of wage boards,	11	
Office rent,	04	
	<hr/>	4 16
		<hr/>
		\$17,900 00

Yours respectfully,

E. H. Matthews

APPENDICES.

APPENDIX NO. 1.

MINIMUM WAGE LEGISLATION OF THE COMMON- WEALTH OF MASSACHUSETTS.

CHAPTER 706, ACTS OF 1912, AS AMENDED BY CHAPTERS 330 AND 673, ACTS OF 1913, AND CHAPTER 368, ACTS OF 1914.

AN ACT TO ESTABLISH THE MINIMUM WAGE COMMISSION AND TO PROVIDE FOR THE DETERMINATION OF MINIMUM WAGES FOR WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. There is hereby established a commission to be known as the Minimum Wage Commission. It shall consist of three persons, one of whom may be a woman, to be appointed by the governor, with the advice and consent of the council. One of the commissioners shall be designated by the governor as chairman. The first appointments shall be made within ninety days after the passage of this act, one for a term ending October first, nineteen hundred and thirteen, one for a term ending October first, nineteen hundred and fourteen, and one for a term ending October first, nineteen hundred and fifteen; and beginning with the year nineteen hundred and thirteen, one member shall be appointed annually for the term of three years from the first day of October and until his successor is qualified. Any vacancy that may occur shall be filled in like manner for the unexpired part of the term.

SECTION 2. Each commissioner shall be paid ten dollars for each day's service, in addition to the traveling and other expenses incurred in the performance of his official duties. The commission may appoint a secretary, who shall be the executive officer of the board and to whose appointment the rules of the civil service commission shall not apply. It shall determine his salary, subject to the approval of the governor and council. The commission may incur other necessary expenses not exceeding the annual appropriation therefor, and shall be provided with an office in the state house or in some other suitable building in the city of Boston.

SECTION 3. It shall be the duty of the commission to inquire into the wages paid to the female employees in any occupation in the commonwealth, if the commission has reason to believe that the wages paid to a substantial number of such employees are inadequate to

supply the necessary cost of living and to maintain the worker in health.

SECTION 4. If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of an equal number of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public; but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall give notice to employers and employees in said occupation by publication or otherwise of its determination to establish a wage board and shall request that said employers and employees, respectively, nominate representatives for said board by furnishing names to the commission. The representatives of employers and employees shall be selected by the commission from names furnished by the employers and by the employees, respectively, provided that these names are furnished within ten days after the request of the commission. The commission shall designate as chairman one of the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determination of the boards. The members of wage boards shall be compensated at the same rate as jurors, and they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission.

SECTION 5. The commission may transmit to each wage board all pertinent information in its possession relative to the wages paid in the occupation in question. Each wage board shall take into consideration the needs of the employees, the financial condition of the occupation and the probable effect thereon of any increase in the minimum wages paid, and shall endeavor to determine the minimum wage, whether by time rate or piece rate, suitable for a female employee of ordinary ability in the occupation in question, or for any or all of the branches thereof, and also suitable minimum wages for learners and apprentices and for minors below the age of eighteen years. When a majority of the members of a wage board shall agree upon minimum wage determinations, they shall report such determinations to the commission, together with the reasons therefor and the facts relating thereto.

SECTION 6. Upon receipt of a report from a wage board, the commission shall review the same, and may approve any or all of the determinations recommended, or may disapprove any or all of them, or may

recommit the subject to the same or to a new wage board. If the commission approves any or all of the determinations of the wage board it shall, after not less than fourteen days' notice to employers paying a wage less than the minimum wage approved, give a public hearing to such employers, and if, after such public hearing, the commission finally approves the determination, it shall enter a decree of its findings and note thereon the names of employers, so far as they may be known to the commission, who fail or refuse to accept such minimum wage and to agree to abide by it. The commission shall thereafter publish at such times and in such manner as it may deem advisable a summary of its findings and of its recommendations. It shall also at such times and in such manner as it shall deem advisable publish the facts, as it may find them to be, as to the acceptance of its recommendations by the employers engaged in the industry to which any of its recommendations relate, and may publish the names of employers whom it finds to be following or refusing to follow such recommendations. An employer who files a declaration under oath in the supreme judicial court or the superior court to the effect that compliance with the recommendation of the commission would render it impossible for him to conduct his business at a reasonable profit shall be entitled to a review of said recommendation by the court under the rules of equity procedure. The burden of proving the averments of said declaration shall be upon the complainant. If, after such review, the court shall find the averments of the declaration to be sustained, it may issue an order restraining the commission from publishing the name of the complainant as one who refuses to comply with the recommendations of the commission. But such review, or any order issued by the court thereupon, shall not be an adjudication affecting the commission as to any employer other than the complainant, and shall in no way affect the right of the commission to publish the names of those employers who do comply with its recommendations. The type in which the employers' names shall be printed shall not be smaller than that in which the news matter of the paper is printed. The publication shall be attested by the signature of at least a majority of the commission.

SECTION 7. Repealed.

SECTION 8. Whenever a minimum wage rate has been established in any occupation, the commission may, upon petition of either employers or employees, reconvene the wage board or establish a new wage board, and any recommendation made by such board shall be dealt with in the same manner as the original recommendation of a wage board.

SECTION 9. For any occupation in which a minimum time rate only has been established, the commission may issue to any woman physically defective a special license authorizing the employment of the licensee for a wage less than the legal minimum wage: *provided*, that it is not less than the special minimum wage fixed for that person.

SECTION 10. The commission may at any time inquire into the wages paid to minors in any occupation in which the majority of employees are minors, and may, after giving public hearings, determine minimum wages suitable for such minors. When the commission has made such a determination, it may proceed in the same manner as if the determination had been recommended to the commission by a wage board.

SECTION 11. Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 12. Upon request of the commission, the director of the bureau of statistics shall cause such statistics and other data to be gathered as the commission may require, and the cost thereof shall be paid out of the appropriation made for the expenses of the commission.

SECTION 13. Any employer who discharges or in any other manner discriminates against any employee because such employee has testified, or is about to testify, or has served or is about to serve upon a wage board, or is or has been active in the formation thereof, or has given or is about to give information concerning the conditions of such employee's employment, or because the employer believes that the employee may testify, or may serve upon a wage board, or may give information concerning the conditions of the employee's employment, in any investigation or proceeding relative to the enforcement of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than two hundred dollars and not more than one thousand dollars for each offence.

SECTION 14. The commission shall from time to time determine whether employers in each occupation investigated are obeying its decrees, and shall publish in the manner provided in section six, the name of any employer whom it finds to be violating any such decree.

SECTION 15. Any newspaper refusing or neglecting to publish the findings, decrees or notices of the commission at its regular rates for the space taken shall, upon conviction thereof, be punished by a fine of not less than one hundred dollars for each offence.

SECTION 16. No member of the commission and no newspaper pub-

lisher, proprietor, editor or employee thereof, shall be liable to an action for damages for publishing the name of any employer in accordance with the provisions of this act, unless such publication contains some wilful misrepresentation.

SECTION 17. The commission shall, annually, on or before the first Wednesday in January, make a report to the general court of its investigations and proceedings during the preceding year.

SECTION 18. This act shall take effect on the first day of July in the year nineteen hundred and thirteen. [*Approved June 4, 1912.*]

CHAPTER 65, GENERAL ACTS OF 1915.

AN ACT TO PROVIDE FOR THE POSTING OF INFORMATION IN PLACES OF EMPLOYMENT.

Be it enacted, etc., as follows:

SECTION 1. The minimum wage commission may require employers to post in conspicuous positions in their places of employment such notices as the said commission may issue for the information of employees.

SECTION 2. This act shall take effect upon its passage. [*Approved March 12, 1915.*]

APPENDIX No. 2.

MINIMUM WAGE DECREES IN FORCE JAN. 1, 1916.

BRUSH DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Brush Makers' Wage Board, after public hearing thereupon held June 29, 1914, and for the reasons set forth in its opinion of even date, in accordance with St. 1912, c. 706, par. 6, makes the following decree: —

1. The lowest time wage paid to any experienced female employee in the brush industry shall be $15\frac{1}{2}$ cents an hour.
2. The rate for learners and apprentices shall be 65 per cent. of the minimum, and the period of apprenticeship shall not be more than one year.
3. These findings shall apply also to all minors.
4. If in any case a piece rate yields less than the minimum time rate, persons employed under such rate shall be paid at least $15\frac{1}{2}$ cents an hour.
5. This decree shall take effect on Aug. 15, 1914, and shall remain in effect until altered by the Commission.

By the order of

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

H. LARUE BROWN, *Chairman.*
MABEL GILLESPIE.
ARTHUR N. HOLCOMBE.

Attest:

AMY HEWES,
Secretary.

AUG. 3, 1914.

LAUNDRY DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Laundry Wage Board, after public hearing thereupon held June 14, 1915, and for reasons set forth in its statement of even date, in accordance with St. 1912, c. 706, § 6, as amended, makes the following decree: —

1. No experienced female employee of ordinary ability shall be employed in any laundry in Massachusetts at a rate of wages less than \$8 a week.

2. No female employee of ordinary ability shall be deemed inexperienced who has been employed in laundries for one year or more.

3. A female employee shall be deemed to have been employed in the industry for a year if her absences from her place or places of employment during twelve months, whether consecutive or non-consecutive, have not been of unreasonable duration.

4. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees, provided:—

(a) That no female employee of ordinary ability who has been employed in laundries for nine months shall be employed at a rate of wages less than \$7.50 a week.

(b) That no female employee of ordinary ability who has been employed in laundries for six months shall be employed at a rate of wages less than \$7 a week.

(c) That no female employee of ordinary ability who has been employed in laundries for three months shall be employed at a rate of wages less than \$6.50 a week.

(d) That no other female employee of ordinary ability shall be paid at a rate of wages less than \$6 a week.

5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage provided that the conditions of section 9, chapter 706, Acts of 1912, as amended, are complied with.

6. These recommendations shall take effect on Sept. 1, 1915, on which date all female employees of ordinary ability who have been employed in the industry for one year or more shall be deemed to have served an apprenticeship of one year, and all others shall be deemed to have begun their apprenticeship, and to be entitled to the rates as specified above.

In order to facilitate the enforcement of this order the Commission recommends that a female employee on leaving

her employment in any establishment receive a card showing the time she has worked in that establishment.

By the order of the

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

ROBERT E. BISBEE, *Chairman.*
MABEL GILLESPIE.
ARTHUR N. HOLCOMBE.

Attest:

AMY HEWES,
Secretary.

JULY 1, 1915.

RETAIL STORE DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Retail Store Wage Board, after public hearings thereupon held August 23 and August 26, 1915, and for reasons set forth in its statement of even date, in accordance with St. 1912, c. 706, par. 6, as amended, makes the following decree:—

1. No experienced female employee of ordinary ability shall be employed in retail stores in Massachusetts at a rate of wages less than \$8.50 a week.

2. No female employee of ordinary ability shall be deemed inexperienced who has been employed in a retail store or stores for one year or more, after reaching the age of eighteen years.

3. A female employee shall be deemed to have been employed in the industry for a year if her absences from her place or places of employment during twelve months, whether consecutive or non-consecutive, have not been of unreasonable duration.

4. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees, provided:—

(a) That no female employee of ordinary ability who has reached the age of eighteen years shall be employed at a rate of wages less than \$7 a week.

(b) That no female employee of ordinary ability who has reached the age of seventeen years shall be employed at a rate of wages less than \$6 a week.

(c) That no other female employee of ordinary ability shall be paid at a rate of wages less than \$5 a week.

5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage provided that the conditions of section 9, chapter 706, Acts of 1912, are complied with.

6. These recommendations shall take effect on January 1, 1916, on which date all female employees of ordinary ability who have been employed in the industry for one year or more after reaching the age of eighteen shall be deemed to have served an apprenticeship of one year, and all others shall be deemed to have begun their apprenticeship, and to be entitled to the rates as specified above.

In order to facilitate the enforcement of this order the Commission recommends that a female employee on leaving her employment in any establishment receive a card showing the time she has worked in that establishment.

By the order of the

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

ROBERT E. BISBEE, *Chairman.*
MABEL GILLESPIE.
ARTHUR N. HOLCOMBE.

Attest:

AMY HEWES,
Secretary.

SEPT. 15, 1915.

FOURTH ANNUAL REPORT
OF THE
MINIMUM WAGE COMMISSION
OF
MASSACHUSETTS.

FOR THE YEAR ENDING DECEMBER 31, 1916.



BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
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1917.

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CONTENTS.

	PAGE
MEMBERS OF THE COMMISSION,	5
 REPORT OF THE COMMISSION:—	
Change in the Personnel of the Commission,	7
Investigations made by the Commission in 1916,	8
Summary of Results of Investigation in the Clothing Trades, 1916:—	
Men's Clothing and Furnishings,	9
Women's Muslin Underwear, Petticoats, Aprons, Kimonos and Neckwear,	12
Summary of Results of Second Retail Store Investigation:—	
Summary of First Investigation,	14
The Establishment of the Minimum Wage,	14
The Attitude of Employers,	15
Comparison of Rates in 1914 and 1916,	16
The Increase of Wages,	16
Other Results of Minimum Wage,	17
Mandatory Minimum Wage recommended,	18
The Work of the Women's Clothing Wage Board,	19
Attitude of the Board,	20
Determination of Cost of Living,	20
Financial Condition of the Industry,	22
Mandatory Minimum Wage recommended,	24
Relation of Irregularity of Employment to Minimum Wage,	24
The Work of Other Wage Boards,	25
The Enforcement of Minimum Wage Determinations,	26
Recommended Legislation,	26
Appropriation,	31
 REPORT OF THE SECRETARY:—	
Statement regarding Investigations made by the Minimum Wage Commission in 1916,	32
Financial Statement,	34
 APPENDIX No. 1:—	
Minimum Wage Legislation of the Commonwealth of Massachusetts,	37
 APPENDIX No. 2:—	
Minimum Wage Decrees established in Massachusetts up to Jan. 1, 1917,	42
 APPENDIX No. 3:—	
Minimum Wage Decrees established in the United States up to Jan. 1, 1917,	47

MEMBERS OF THE COMMISSION.

EDWIN N. BARTLETT, *Chairman.*

MABEL GILLESPIE.

ARTHUR N. HOLCOMBE.

ELLEN NATHALIE MATTHEWS, *Secretary.*

The Commonwealth of Massachusetts.

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Massachusetts Minimum Wage Commission, as required by law, herewith respectfully submits the following report of its investigations and proceedings during the year ended Dec. 31, 1916, together with copies of proposed amendments to the minimum wage law, which in the judgment of the Commission are necessary if the purpose of the law is to be efficiently accomplished, and a financial statement showing the use made by the Commission of the money appropriated to be spent under its direction during the fiscal year ended Nov. 30, 1916, and the need of a larger appropriation for the ensuing year. To the report are appended the report of the secretary and copies of the minimum wage law, of the decrees entered by the Commission by authority thereof, and of the minimum wage determinations in effect in other States.

CHANGE IN THE PERSONNEL OF THE COMMISSION.

The vacancy in the Commission, existing at the time of the last annual report, was filled on Aug. 2, 1916, by the appointment of Mr. Edwin N. Bartlett of North Oxford. In accordance with an amendment to the minimum wage law, adopted earlier in the year,¹ providing that one of the members of the Commission should be a representative of the employers of female labor within the Commonwealth and one might be a representative of the employees, Mr. Bartlett was

¹ Chapter 303, General Acts of 1916.

appointed as the employers' representative. He was also designated by the Governor to act as chairman of the Commission. The term of Miss Gillespie expired October 1, and she was reappointed under the amended act as the employees' representative.

The Commission suffered an irreparable loss by the death on Nov. 14, 1916, of Mr. Robert G. Valentine, chairman of the Brush Makers' Wage Board. Mr. Valentine's service on this, the first board organized by the Commission, was that of the pioneer who blazes the trail for others to follow. Since the establishment of the minimum wage in the brush industry the Commission has found in Mr. Valentine a never-failing source of encouragement and wise counsel.

INVESTIGATIONS MADE BY THE COMMISSION IN 1916.¹

During the first six months of 1916 the Commission completed the investigation, begun in 1915, of the wages of women employed in the manufacture of men's ready-made clothing, and began and completed investigations of the wages of women employed in the manufacture of raincoats, men's shirts, overalls, neckwear, suspenders and other elastic goods, and women's muslin underwear, petticoats, aprons, kimonos and neckwear. In the latter half of the past year the Commission has begun and completed an investigation of the wages of women employed in hotels and restaurants, and has begun an investigation of the wages of women engaged in the manufacture and trimming of millinery. The results of the investigations in the garment trades, which are being published in the form of special bulletins,² are summarized below. The tabulation of the wage data secured in the hotel and restaurant investigation has not as yet been completed.

The Commission has also made an inquiry into the wages of women in retail stores in order to ascertain the extent to which the minimum rates recommended in 1915 for that industry have been accepted and put into operation by the employers, and to discover as far as possible the effect of the

¹ A statement showing the number of establishments visited and the number of women for whom wage records were secured in the course of the commission's investigations is contained in the secretary's report on p. 32.

² Minimum Wage Commission, Bulletins, Nos. 13, 14 and 15.

minimum wage. The results of this investigation, which have already been published in a special bulletin,¹ are also summarized in this report below.

SUMMARY OF RESULTS OF INVESTIGATIONS INTO THE WAGES OF WOMEN IN THE CLOTHING TRADES, 1916.

Men's Clothing and Furnishings. — According to the Statistics of Manufacture, issued by the Massachusetts Bureau of Statistics for 1914, the average number of women employed in this State in the manufacture of men's ready-made clothing and furnishings (exclusive of knit underwear and hosiery), shirts, and garters, suspenders and other elastic goods, was 6,081.² Probably between 400 and 600 additional women were employed in establishments manufacturing raincoats, which were classified by the Bureau of Statistics under the head of "women's clothing" or "rubber goods not elsewhere specified," making a total of at least 6,500 women workers engaged in the manufacture of men's clothing and in the furnishing trades as a whole. The wage records available for tabulation which were secured by the Commission covered a total of 4,416 women, including 1,132 engaged in the manufacture of men's ready-made clothing, 626 employed in raincoat factories, 1,242 employed in shirt factories, 739 employed in suspender and garter factories, 401 employed in overall factories, and 276 employed in men's neckwear factories. The following tables summarize the facts relating to the wages paid to women in these industries as found by the Commission's investigation: —

¹ Minimum Wage Commission, Bulletin No. 12.

² Of these, 2,816 were employed in the manufacture of outer clothing and overalls, 1,273 in shirt factories, 304 in the manufacture of "furnishing goods," so called, and 1,688 in the manufacture of suspenders, garters and other elastic goods.

Wages of Women in the Men's Clothing and Furnishing Trades.

INDUSTRIES.	NUMBER AND PER CENT. OF WOMEN WITH AVERAGE WEEKLY EARNINGS OF —																TOTAL.	
	UNDER \$3.		UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.		\$9 AND OVER.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.		
<i>Men's Clothing.</i> Coats, pants, vests and over- coats, Raincoats, Shirts, Overalls and duck coats,	43	3.8	110	9.7	262	23.1	485	42.8	703	62.1	884	78.1	977	86.3	155	13.7	1,132	100
	17	2.7	51	8.1	118	18.8	229	36.6	328	52.4	407	65.0	500	79.9	126	20.1	626	100
	70	5.6	154	12.4	300	24.2	478	38.5	696	56.0	904	72.8	1,050	84.5	192	15.5	1,242	100
	12	3.0	44	11.0	88	21.9	131	32.7	210	52.4	267	66.6	325	81.0	76	19.0	401	100
<i>Men's Furnishings.</i> Neckwear, Suspenders, garters, etc.,	4	1.4	20	7.2	50	21.4	99	35.9	145	52.5	183	66.3	208	75.4	68	24.6	276	100
	16	2.2	79	10.7	188	25.4	295	39.9	439	59.4	557	75.4	654	88.5	85	11.5	739	100

Rates of Payment of Week Workers in the Men's Clothing and Furnishing Trades.

INDUSTRIES.	NUMBER AND PER CENT. OF WOMEN WEEK WORKERS WITH RATES OF —																TOTAL.	
	UNDER \$3.		UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.		\$9 AND OVER.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Men's Clothing. Coats, pants, vests and over- coats, Raincoats,	—	—	12	1.9 3.4	43 15	6.9 8.6	102 30	16.3 17.1	220 69	35.1 39.4	358 110	57.1 62.9	488 130	77.8 74.3	139 45	22.2 25.7	627 175	100 100
	—	—	—	—	2	2.8	11	15.5	26	33.6	38	53.5	49	69.0	22	31.0	71	100
	Men's Furnishings. Neckwear,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE. — The number of week workers in the shirt, overall and suspender industries was too small for tabulation.

Women's Muslin Underwear, Petticoats, Aprons, Kimonos and Neckwear. — In 1915 the Commission made an investigation into the wages of women in the women's clothing factories.¹ Owing to the dissimilarity in industrial conditions prevailing in the different branches of the women's clothing trades this investigation covered only establishments engaged in the manufacture of outer garments (cloaks, suits, skirts, dresses and waists). Shortly after the establishment of the so-called Women's Clothing Wage Board, appointed to recommend rates of minimum wages for females employed in the manufacture of women's outer garments only, the Commission began an investigation of the remaining branches of the industry, which include muslin underwear, petticoats, aprons, kimonos and neckwear. Since no separate figures are given for these trades by the United States census or the Massachusetts Bureau of Statistics, it is not possible to tell the number of women to which they give employment in this State. In the investigation conducted by the Commission wage records available for tabulation were secured for 2,121 women workers, of whom 960 were employed in underwear factories, 516 in neckwear factories, 380 in apron and kimono factories and 265 in petticoat factories. A summary of the information secured by the Commission relative to the wages paid to these workers is presented in the following tables: —

¹ Minimum Wage Commission, Bulletin No. 9, Wages of Women in Women's Clothing Factories in Massachusetts, September, 1915.

Wages of Women in Women's Muslin Underwear, Petticoat, Apron, Kimono and Neckwear Factories.

INDUSTRIES.	NUMBER AND PER CENT. OF WOMEN WITH AVERAGE WEEKLY EARNINGS OF —																TOTAL.	
	UNDER \$3.		UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.		\$9 AND OVER.		Number.	Per Cent.
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.		
Muslin underwear,	58	6.0	131	13.6	279	29.1	444	46.3	599	62.4	772	80.4	873	90.9	87	9.1	960	100
Petticoats,	2	8	8	3.0	21	7.9	55	20.8	96	36.2	136	51.3	165	62.3	100	37.7	265	100
Aprons and kimonos,	29	7.6	81	21.3	134	35.3	192	50.5	262	68.9	322	84.7	348	91.6	32	8.4	380	100
Women's neckwear,	19	3.7	75	14.5	149	28.9	287	55.6	339	75.4	452	87.6	491	95.2	25	4.8	516	100

Rates of Payment of Week Workers in Women's Muslin Underwear, Petticoat, Apron, Kimono and Neckwear Factories.

INDUSTRIES.	NUMBER AND PER CENT. OF WOMEN WEEK WORKERS WITH RATES OF —																TOTAL.	
	UNDER \$3.		UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.		\$9 AND OVER.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.		
Muslin underwear,	—	—	2	1.5	6	4.5	37	27.6	64	47.8	90	67.2	106	79.1	28	20.9	134	100
Petticoats,	—	—	—	—	1	1.6	11	17.5	28	44.4	44	69.8	50	79.4	13	20.6	63	100
Aprons and kimonos,	1	.7	1	.7	9	6.5	27	19.4	45	32.4	91	65.5	120	86.3	19	13.7	133	100
Women's neckwear,	—	—	—	—	6	2.0	30	10.0	108	36.1	178	59.5	246	82.3	53	17.7	299	100

SUMMARY OF RESULTS OF SECOND RETAIL STORE
INVESTIGATION.

Results of First Investigation.—The Commission has twice investigated the wages of women employed in Massachusetts retail stores. The first investigation was made in 1914 in order to ascertain whether the wages then paid to women employed in retail stores were insufficient, in the cases of a substantial number, to supply the necessary cost of living and of maintenance in health. That investigation covered 6,449 women and girls regularly employed in 22 retail stores other than five-and-ten cent stores, 2,359 employed in such stores as “extras” and 418 employed in 4 representative five-and-ten cent stores.¹ Of those regularly employed in stores other than five-and-ten cent stores, 48.1 per cent. were paid at rates of less than \$8 a week; 34.7 per cent. were paid at rates of less than \$7 per week; 22.6 per cent. were paid at rates of less than \$6 per week; and 14.7 per cent. were paid at rates of less than \$5 per week.² The rates varied greatly, however, for different occupations and in different establishments. A majority of the messengers and bundlers, practically all of whom were young girls, were paid at rates of less than \$4 per week, while among the saleswomen, who comprised a majority of the total number of female employees, and the greater proportion of whom were adult women, three-fifths were paid at rates of \$8 per week or more.³ In one establishment no female employee was paid at a rate of \$8 per week or over; in another establishment nearly one-third of all the female employees were paid at rates of less than \$5 per week, and more than half at rates of less than \$6 per week.⁴ In the five-and-ten cent stores nearly two-thirds of the total number of women employed were paid at rates of less than \$6 per week.⁵

The Establishment of the Minimum Wage.—In view of the

¹ Minimum Wage Commission, Bulletin No. 6, Wages of Women in Retail Stores in Massachusetts, March, 1915.

² *Ibid.*, Table V., p. 39.

³ *Ibid.*, Table III., p. 37.

⁴ *Ibid.*, Table V., p. 39.

⁵ *Ibid.*, Table XVIII., p. 55.

facts disclosed by this investigation, the Commission, as authorized by law, formed a wage board to consider the needs of the women and girls employed in retail stores, and, after due consideration also of the financial condition of the business, to determine minimum rates of payment for women and girls employed therein. The minimum rates determined by this board were \$5 per week for girls under seventeen years of age, \$6 per week for girls between seventeen and eighteen, \$7 per week for girls over eighteen and inexperienced women, and \$8.50 per week for experienced women, that is, for women with more than a year's experience in retail stores after reaching the age of eighteen. The Commission approved these determinations and recommended to the proprietors of retail stores in Massachusetts that on and after Jan. 1, 1916, they pay to the several classes of their female employees not less than these minimum rates.¹ The response to the Commission's recommendations was most gratifying. Proprietors of retail stores employing altogether about 12,000 women and girls notified the Commission of their acceptance of its recommendations and of their intention to follow them in the conduct of their establishments.² Immediately after the recommendations became effective the Commission began its second investigation into the wages of women in retail stores. .

The Attitude of Employers. — The second investigation covered 16,036 full-time workers and over 1,000 extras in 955 separate establishments.³ In 606 of these establishments, mostly small stores in which women were employed only for office work, no changes in rates of payment were necessary in order to comply with the Commission's recommendations. In 115 establishments, employing on the average 13 women and girls each, the necessary changes were not made. In the remaining 234 establishments, employing on the average 54 women and girls each and including almost all the larger department stores in Boston and the other principal cities of the State

¹ Minimum Wage Commission, Statement and Decree concerning the Wages of Women in Retail Stores, September, 1915. (See Appendix No. 2.)

² Minimum Wage Commission, Bulletin No. 12, Preliminary Report on the Effect of the Minimum Wage in Massachusetts Retail Stores, November, 1916, pp. 11 and 13.

³ *Ibid.*, Table I., p. 16.

all or substantially all necessary changes were made.¹ The Commission has published the names of the proprietors of the retail stores which were found to be following its recommendations, as an Appendix to the special report, already referred to, relating to the effect of the minimum wage in Massachusetts retail stores.²

Comparison of Rates in 1914 and 1916. — A comparison of the rates paid to female employees in 14 of these establishments in 1916, with the rates paid in 1914 is illuminating. In 1916 only 18.6 per cent. of the women and girls regularly employed were paid at rates of less than \$8 per week; 12.9 per cent. were paid at rates of less than \$7 per week; 6.1 per cent. were paid at rates of less than \$6 per week; and no one was paid at a rate of less than \$5 per week.³ In all the establishments which raised wages in pursuance of the Commission's recommendations only 1.6 per cent. of the female employees were paid at rates below the minimum rates recommended. On the other hand, in the establishments where the Commission's recommendations were not followed, 48.4 per cent. of the women and girls were paid at rates below the minimum rates.⁴ There is no evidence to show that the level of wages in these establishments generally was materially higher in 1916 than in 1914.

The Increase of Wages. — The total number of women and girls whose wages were raised in pursuance of the Commission's recommendations cannot be exactly stated. It is known, however, that the wages of nearly 6,000 full-time workers were raised on or about Jan. 1, 1916, when the Commission's recommendations became effective. They comprised about two-fifths of all the women and girls employed as full-time workers in the establishments from which information relative to changes in wages was obtained. Over nine-tenths of those whose wages were increased at this time were employed in establishments which accepted and followed the Commission's recommendations. The proportion

¹ Minimum Wage Commission, Bulletin No. 12, Preliminary Report on the Effect of the Minimum Wage in Massachusetts Retail Stores, November, 1916, Table 1, p. 16.

² *Ibid.*, Appendix No. 2.

³ *Ibid.*, Table 10, p. 30.

⁴ *Ibid.*, Table 2, p. 19.

of the female employees who received increases in wages in these establishments was more than twice as great as in the establishments where the Commission's recommendations were disregarded.¹ If it be assumed that, on the average, one female employee in five would have received an increase of wages in the normal course of business, it follows that at least 25 per cent. of the total number of female employees in retail stores where the Commission's recommendations were followed received increases which they would not have received but for the acceptance of the minimum wage, and doubtless many of the others, whose wages were increased at this time, received greater increases than they would normally have received. These increases ranged all the way from 50 cents to \$4.50 a week, and altogether caused an addition to the total weekly pay roll for women and girls employed in retail stores amounting to more than \$6,000 in the 208 establishments from which this information was obtained.² The changes in wages which occurred at the time the minimum rates recommended by the Commission became effective are shown in detail in its special report.

Other Results of Minimum Wage. — In general it may be said that most experienced women now employed in retail stores are receiving not less than the minimum rates recommended by the Commission; that most learners and apprentices are now employed under more favorable conditions and with better prospects than ever before; and that no such general increase in wages as has actually occurred would have taken place but for the operation of the minimum wage law. These good results have apparently been accomplished without imposing any undue financial burden upon the retail stores. The acceptance of the minimum wage required a general readjustment of rates in many stores, and in some of these the process of readjustment entailed a change of occupation on the part of a relatively small number of women. In most cases, however, where it was possible to identify and trace these women, it was found that they were better off financially as a result of their change of occu-

¹ Minimum Wage Commission, Bulletin No. 12, Preliminary Report of the Effect of the Minimum Wage in Massachusetts Retail Stores, November, 1916, Table 2, p. 19.

² *Ibid.*, Table 4, p. 20.

pation. The acceptance of the minimum wage has not caused the reduction of the wages of the better-paid employees. In other words, there is no tendency for the minimum to become the maximum. On the contrary, a larger proportion of the women employed in retail stores, where the Commission's recommendations have been followed, are now paid at rates above the minimum than before. Thus in the retail stores, as in the brush industry,¹ experience has shown that the establishment of the minimum wage has been followed by the desired results, both in the industry as a whole and in every individual establishment where the management has been willing to give it a fair trial.

Mandatory Minimum Wage recommended. — In the light of these facts it is greatly to be regretted that a few proprietors of retail stores in Massachusetts have chosen to ignore the Commission's recommendations. Apparently many of these proprietors are operating stores in which the wages of the female employees were below the average in 1914 when the Commission made its first investigation. Apparently there has been little improvement since then in the general level of rates prevailing in these stores. These proprietors know that they are paying many of their female employees less than the necessary cost of living and maintenance in health, and that by so doing they are obtaining an advantage over their more conscientious competitors. The Commission believes that this is an unfair advantage, and that it cannot be tolerated without serious and unjustifiable injury to their competitors. Moreover, the Commission entertains no hope that these proprietors will voluntarily forego this unfair advantage and accept the schedule of minimum wages now followed by their competitors. In view of these circumstances the Commission concludes that justice to the large majority of the proprietors of retail stores in this State, as well as to the women and girls who work for a living in retail stores, requires that it be armed with power to enforce its recommendations concerning the wages of women in this occupation.

¹ Minimum Wage Commission, Bulletin No. 7, The Effect of the Minimum Wage Decree in the Brush Industry in Massachusetts, September, 1915.

THE WORK OF THE WOMEN'S CLOTHING WAGE BOARD.

In its last annual report the Commission noted that a wage board, was then in process of organization for the women's clothing industry. The organization of this board was completed early in the year. It consisted of fifteen members, six representing the employers, six the female employees and three the public. The representatives of the public were Mrs. Esther M. Andrews of Boston, Mr. Robert G. Morse of the Rivett Lathe and Grinder Company, Boston, and Mr. Herbert B. Ehrmann, at that time with the Legal Aid Society of Boston. Mr. Ehrmann acted as chairman. The board, after devoting sixteen meetings to the consideration of the needs of the employees, of the financial condition of the industry, and of the probable effect thereon of any change in the wages paid to female employees of ordinary ability, voted unanimously that an experienced woman employed in the manufacture of women's clothing in Massachusetts should receive not less than \$8.75 for a full week's work, and that learners and apprentices should receive not less than \$6 or \$7, according to their age and experience. The Commission, after due notice to employers paying less than the proposed minimum wages, held a public hearing in order that these employers might show cause, if any, why the proposed wages should not be approved by the Commission. At this hearing no evidence was submitted which showed that the proposed wages were unreasonable, or that the financial condition of the women's clothing industry was such that the employers could not fairly be expected to pay at least as much as had been recommended by the wage board. The Commission therefore finally approved the board's recommendations, to become effective Feb. 1, 1917.¹

The full report of the Women's Clothing Wage Board, containing its recommendations together with the reasons therefor, was printed by the Commission in its "Statement and Decree concerning the Wages of Women in Women's Clothing Factories in Massachusetts" (cloak, suit, skirt, dress and

¹ Minimum Wage Commission, Statement and Decree concerning the Wages of Women in Women's Clothing Factories in Massachusetts, Sept. 23, 1916.

waist shops). This report contains a valuable discussion of certain questions of general public interest, notably (1) that of the attitude of the members of a minimum wage board toward their duties under the law, (2) the determination of the cost of living, (3) the consideration of the financial condition of the industry, (4) the method of enforcing the minimum wage, and (5) the relation of irregularity of employment to the minimum wage. We quote the following paragraphs:—

Attitude of the Board.

“At the outset it was conceivable that the board might proceed in two different ways. The representatives of employers and employees might regard themselves as advocates of their respective interests before the representatives of the public as judges. On the other hand, *all* members of the board might regard their position as that of judges, approaching the subject with different backgrounds, but nevertheless keeping their minds open until all the evidence was in. At the first meeting it was unanimously voted that the attitude of the entire board be judicial in character, and this attitude was maintained consistently throughout all the deliberations.’

Determination of Cost of Living.

“The first duty of the board was to determine the minimum cost of living in health and decency to a female worker in the industry in Massachusetts. It was found that three different standards existed, viz.:—

“1. For girls living at home and contributing to its support.

“2. For girls lodging and boarding at different places.

“3. For girls lodging and boarding at the same place.

“Since it was impracticable to base a minimum wage on three different minimum budgets, and an average of three budgets would conform to none of the standards, a selection became necessary. Accounting the cost of living for the girl ‘at home’ was regarded as extremely unreliable, because it involved an arbitrary fixing of the size of the family and its number of bread-winners. Moreover, it was as unfair to ask the employer to pay the cost of dependents at home as to allow him to profit by parental support, and so it was felt

that no distinction should be made between the girl living with strangers and the girl living at home. A budget for the girl lodging and boarding at different places was prepared, but this also was eliminated. It was felt that separate board, being more expensive and not absolutely necessary, should not be included in a minimum budget. The standard of the girl lodging and boarding at the same place was unanimously accepted.

"In determining a living budget the board had before it the following material: —

"1. Investigations of preceding wage boards.

"2. Investigations by other bodies within and without Massachusetts.

"3. Many schedules gathered by members of the board (including employers) from workers in the industry.

"4. Investigation into the cost of board and lodging in and about Boston by a committee of the board.

"5. Estimated budgets by employees on the board.

"The various items of the budget were voted one by one, the total sum (\$8.98) being accepted unanimously as the necessary cost of living for a self-supporting woman in this industry. The itemized budget is as follows: —

	Per Week
Board and room, ¹	\$5 75
Clothing,	1 50
Laundry,	25
Car fare,	10
Doctor and dentist,	25
Church,	10
Vacation,	25
Education,	18
Recreation,	25
Savings,	25
Incidentals,	10
Total,	\$8 98

"Although this total was reached after an independent investigation lasting eight weeks, it is noteworthy that the sum

¹ This item is for board and lodging within walking distance of the factory, hence daily car fare is omitted. The investigation showed that while rents in outlying districts were somewhat lower, this was approximately offset by the item of daily car fare.

is approximately the same as that accepted by three preceding wage boards,¹ except for the item of 25 cents for savings. The board desired to go on record as favoring the inclusion of this item in a minimum budget. The amount of this item, however, was not an attempt to provide insurance against seasonality and irregularity of employment, which would require a much greater sum than 25 cents. As a matter of procedure, it was thought best to determine first whether the financial condition of the industry was such that a minimum wage of \$8.98 could be paid, before adding the very substantial increase entailed by making allowance for the exceptionally high rate of unemployment peculiar to this industry."

Financial Condition of the Industry.

"The next duty of the board was to inquire into the financial condition of the industry, and the probable effect thereon of an increase in minimum rates to \$8.98 a week. For this purpose the board endeavored to get information from the following sources:—

"1. Published report of the Commission on the 'Wages of Women in the Women's Clothing Industry.'

"2. Preliminary survey of the industry by manufacturers on the board.

"3. Hearings before the board at which other manufacturers were invited and urged to give their views.

"4. Letter and questionnaire to every Massachusetts manufacturer in this industry, urging an expression of opinion as to the probable effect of an \$8.98 minimum in his establishment.

"5. Special investigation relative to the comparative cost of specific items of labor in this industry in Massachusetts and in other manufacturing centers.

"It was felt that no general conclusions about the financial condition of the industry could be drawn from these data. Although the board's investigators visited a number of centers within and without Massachusetts, and investigated many establishments, the results were too slight for sound

¹ Brush, candy and laundry boards.

general deductions. In one great center a labor crisis had closed many channels of investigation, and in others the manufacturers were reluctant to give information. Even in Massachusetts, where many establishments were willing to give ample information, the lack of adequate or uniform accounting methods rendered the value of the investigation almost negligible.

“The results of the board’s study showed that the industry in Massachusetts competed to some extent with the industry in other manufacturing centers. Although it was found that the great bulk of the products of this industry in Massachusetts were sold in New England, the board felt that Massachusetts industry should not be forced to manufacture on such terms as would keep it limited to the present market. Nevertheless, in so far as the investigation yielded any facts, these did not indicate that the additional labor cost, brought about by the establishment of the contemplated minimum wage, would seriously handicap the industry in competition with other States.

“A survey of the industry revealed anarchical conditions which were substantiated by the investigation. Little capital is required to start, and this is often advanced by the large retail stores. The result is a high birth rate of new concerns, bringing inefficient management and poor working conditions continually in competition with established concerns, forcing prices down to the cut-throat level. The business death rate is correspondingly high, but there are always new concerns to take the field. Even among established houses, manufacturing substantially the same lines of goods, there is little uniformity in management, rates of wages or cost accounting. Some establishments reported that the proposed minimum wage would not affect their business at all; others that its effect could be met by better management or more efficient labor; others that it would decrease their profits to a slight extent; others that it would drive them out of business in Massachusetts. The investigation indicated all of these possibilities. Whether or not the rise in wages entailed by the establishment of a minimum wage could be offset by more efficient management and labor could not be answered

positively, but many factories which were already paying a minimum wage close to the sum suggested were apparently in sound financial condition."

Mandatory Minimum Wage recommended.

"The board felt that if the minimum wage were accepted by all manufacturers it would not be a hindrance to the industry, but would tend to equalize wages and relieve the more progressive factories of competition with sweat-shops and family shops. On the other hand, a minimum wage, accepted by some and rejected by others, would accentuate the inequalities in wages paid by different establishments. It was therefore unanimously voted that this board go on record as favoring a mandatory minimum wage at the earliest possible date."

Relation of Irregularity of Employment to Minimum Wage.

"The board felt that the proposed minimum wage of \$8.98 was so far above the wages now paid in certain occupations in some establishments that a too abrupt change might occasion considerable hardship both to employers and employees during the period of readjustment. This consideration led to a reduction of that amount to \$8.75, which sum was unanimously adopted as the minimum weekly rate to be paid to adult female workers in this industry. For the same consideration it is recommended that the decree be not put in effect before February 1, 1917, in order that the industry may anticipate the change and put its house in order. This rate might have been further reduced for the same reason were it not for another vital consideration. The budget which had been accepted contemplated employment for fifty-two weeks in each year. It made no provision for unemployment, — so great in this industry because of seasonal irregularity. This question had been tabled until the financial condition of the industry had been investigated.

"Since the board decided to fix the minimum rate at not more than \$8.75, — less than the accepted budget, — it

became unnecessary to consider the very substantial increase that must be made if the expenses of unemployment were added to the budget. It was this consideration of unemployment, however, which blocked any further revision downward and eventually won the day for the rate recommended to the Commission. The board was strongly of opinion that the fluctuating employment in this industry constitutes such a serious problem that it merits the attention of this Commonwealth for study and remedial measures."

THE WORK OF OTHER WAGE BOARDS.

The Women's Clothing Wage Board was the only board to complete its work in 1916. Two other boards, which had been organized in 1915, have held no meetings during the year. One of these, the board for the corset industry, suspended its meetings on account of a vacancy in its membership. As noted in its last annual report, the Commission was advised that further legislation was necessary to enable it to fill this vacancy. A suitable bill was drafted by the Commission and introduced into the Legislature, but was referred by the latter to the next General Court. The second of these boards, the Paper Box Wage Board, was duly appointed in the latter part of 1915, but has never met. The employers' representatives have declined to proceed with the work of the board until the constitutionality of the minimum wage law has been settled by the courts. With respect to the confectionery wage board, originally organized in 1914 and reorganized in 1915, the Commission has nothing to add to what was said in its last annual report. In the men's clothing industry, for which a wage board is now in process of organization, a public hearing was held, at which the employers were invited to show cause, if any, why a wage board should not be organized, before further steps were taken to establish a board. At the hearing the general sentiment of the employers who attended was favorable to the establishment of a minimum wage board.

THE ENFORCEMENT OF MINIMUM WAGE DETERMINATIONS.

Prior to the beginning of 1916 the Commission had recommended minimum wages for three industries, — the brush industry, laundries and retail stores. The extent to which the Commission's recommendations have been followed in the first and last of these three industries has been shown in the Commission's special reports thereon.¹ On the whole, as has been indicated, the results have been most gratifying. The same cannot be said in the case of the laundries. In its last annual report the Commission noted that the proprietors of laundries seemed less generally disposed than employers in the two other industries to accept its recommendations, and that when the Commission sought to examine their records, so far as related to the wages paid to female employees, in order to ascertain whether its recommendations were being followed, the employers declined to permit the examination to be made, although the duty to permit such an examination is expressly imposed upon them by law.² The Commission thereupon subpoenaed a number of such employers to appear before it with such parts of their books and records as related to the wages paid to their female employees. The employers declined to appear, alleging in justification of their refusal that the minimum wage law was unconstitutional. The question of constitutionality thus raised is now before the Supreme Judicial Court.

RECOMMENDED LEGISLATION.

The experience, already noted, with the minimum wage in retail stores, and the unanimous recommendation of the Women's Clothing Wage Board, has compelled the Commission to consider whether it should not be entrusted with further powers to enforce the determinations of minimum wage boards, when finally approved after public hearings held in accordance with law. The Commission is of the opinion that it is necessary at this time to provide further penalties for the violation of its decrees in certain cases, namely,

¹ Bulletins Nos. 7 and 12.

² Section 11, chapter 700, Acts of 1912, as amended.

in cases where the Commission's decree is based upon a determination by a wage board in which both a majority of the employers' representatives and a majority of the employees' representatives respectively concur. In such cases, as has been pointed out, it is unjust that a selfish minority of employers should be permitted to retain an unfair advantage over their more enlightened competitors, and possibly to deprive all the employees, not merely those in their own employ, of much of the benefit to be expected from the minimum wage law. The Commission has accordingly drafted the following bill, which, if enacted, will, it believes, protect employees and employers alike against the injurious consequences that must be expected if a minority of employers in any industry may disregard the Commission's recommendations with impunity.

AN ACT TO PROVIDE FOR THE ENFORCEMENT OF THE RECOMMENDATIONS
OF THE MINIMUM WAGE COMMISSION IN CERTAIN CASES.

Be it enacted, etc., as follows:

SECTION 1. Chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended by chapters three hundred and thirty and six hundred and seventy-three of the acts of the year nineteen hundred and thirteen, chapter three hundred and sixty-eight of the acts of the year nineteen hundred and fourteen, and chapter three hundred and three of the acts of the year nineteen hundred and sixteen, is hereby further amended by adding thereto a new section, to be known as section seven, so as to read as follows: — *Section 7.* In case a wage board has made or shall make a recommendation in which not only a majority of the whole board but also a majority of the representatives of the employers and of the employees, respectively, concur and the commission after due notice to employers and a public hearing, as provided by section six of chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended, has finally approved or shall finally approve the same, the commission shall issue an order to be effective not less than sixty days from the date of said order, specifying the minimum wage or wages for women or minors or both in the occupation affected or any branch thereof, and after such order is effective it shall be unlawful for any employer in said occupation to employ a woman or minor for less than the rate of wages specified for such women or minors. The order shall be published in at least one newspaper in the commonwealth, and a copy of the order shall be sent by mail, so far as practicable, to each employer in the occupation in question. Any person employing a woman or minor for whom a minimum wage has

been duly established by such an order at less than said minimum wage shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be punished by a fine of not less than ten nor more than fifty dollars for each day of such illegal employment. If any employee shall receive less than the minimum wage duly established for her by an order issued under authority of this section, she shall be entitled to recover in a civil action the full amount of her legal minimum wage, together with costs and attorney's fees to be fixed by the court, notwithstanding any agreement to work for such lesser wages. In such action, however, the employer shall be credited with any wages which have been paid upon account.

SECTION 2. This act shall take effect upon its passage.

The Commission renews the recommendations, contained in its last annual report, for legislation requiring certain employers to keep records of hours worked by women and minors in their employ, for legislation enabling the Commission to fill vacancies in wage boards, and for legislation to insure proper publicity for its orders and recommendations. The experience of another year has served only to emphasize the importance of the considerations upon which these recommendations were originally based. The recommended legislation follows:—

AN ACT TO PROVIDE FOR RECORDS OF HOURS OF EMPLOYMENT OF
WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. Section eleven of chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended by chapters three hundred and thirty and six hundred and seventy-three of the acts of the year nineteen hundred and thirteen and chapter three hundred and sixty-eight of the acts of the year nineteen hundred and fourteen, is hereby further amended by inserting after the word "minor", in the fourth line, the words:—and a record of the hours worked by each of such employees each week: *provided*, that such record of hours shall not be required in the case of women and minors who are paid a fixed weekly wage or rate, without deduction for hours of unemployment,—so as to read as follows:—*Section 11.* Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and a record of the hours worked by each of such employees each week: *provided*, that such record of hours shall not be required in the case of women and minors who are paid a fixed weekly wage or

rate, without deduction for hours of unemployment, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 2. This act shall take effect upon its passage.

AN ACT TO PROVIDE FOR FILLING VACANCIES ON WAGE BOARDS.

Be it enacted, etc., as follows:

SECTION 1. Section four of chapter seven hundred and six of the acts of the year nineteen hundred and twelve, as amended by chapters three hundred and thirty and six hundred and seventy-three of the acts of the year nineteen hundred and thirteen and chapter three hundred and sixty-eight of the acts of the year nineteen hundred and fourteen, is hereby further amended by adding thereto the following: —

The commission shall have power to fill a vacancy or vacancies arising in a duly constituted wage board by appointing a sufficient number of suitable persons to complete the representation of the employers, employees, or public, as the case may be, — so as to read as follows: —

Section 4. If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of an equal number of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public; but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall give notice to employers and employees in said occupation by publication or otherwise of its determination to establish a wage board, and shall request that said employers and employees, respectively, nominate representatives for said board by furnishing names to the commission. The representatives of employers and employees shall be selected by the commission from names furnished by the employers and by the employees, respectively: *provided*, that these names are furnished within ten days after the request of the commission. The commission shall designate as chairman one of the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to

the validity of the procedure and of the determination of the boards. The members of wage boards shall be compensated at the same rate as jurors, and they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission. The commission shall have power to fill a vacancy or vacancies arising in a duly constituted wage board by appointing a sufficient number of suitable persons to complete the representation of the employers, employees, or public, as the case may be.

SECTION 2. This act shall take effect upon its passage.

AN ACT TO PROVIDE FOR THE POSTING OF INFORMATION IN PLACES OF
EMPLOYMENT.

Be it enacted, etc., as follows:

SECTION 1. Section one of chapter sixty-five of the general acts of the year nineteen hundred and fifteen is hereby amended by adding thereto the following: — and the commission shall require employers in any occupation to post and keep posted in conspicuous positions in their places of employment such notices as the commission may issue regarding the minimum rates of wages for female employees in such occupation. Whoever violates the provisions of this act shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than ten and not more than fifty dollars for each offence. The minimum wage commission and the state board of labor and industries shall have power to enforce the provisions of this act, — so as to read as follows: — *Section 1.* The minimum wage commission may require employers to post in conspicuous positions in their places of employment such notices as the said commission may issue for the information of employees, and the commission shall require employers in any occupation to post and keep posted in conspicuous positions in their places of employment such notices as the commission may issue regarding the minimum rates of wages for female employees in such occupation. Whoever violates the provisions of this act shall be deemed guilty of a misdemeanor and shall be punished by a fine of not less than ten and not more than fifty dollars for each offence. The minimum wage commission and the state board of labor and industries shall have power to enforce the provisions of this act.

SECTION 2. This act shall take effect upon its passage.

The Commission also renews a previous recommendation that additional copies be printed of its annual reports. The demand for these reports is large and is constantly growing, and the interests of the Commonwealth require that it be fully supplied. The following legislation is therefore recommended: —

AN ACT RELATIVE TO THE ANNUAL REPORT OF THE MINIMUM WAGE COMMISSION.

Be it enacted, etc., as follows:

SECTION 1. There shall be published annually two thousand five hundred copies of the annual report of the minimum wage commission, one thousand five hundred of which shall be for the use of the minimum wage commission. *

SECTION 2. This act shall take effect upon its passage.

APPROPRIATION.

The appropriation for the fiscal year ended Nov. 30, 1916, was \$17,400. The manner in which this money has been employed is shown in the financial statement appended to the secretary's report. If the Commission is to make due progress in its work during the coming year it must have a larger appropriation. Upon the favorable termination of the litigation which has retarded its work during the past year, the meetings of the wage boards already established will be resumed and new boards will be established. The sum that will presumably be needed for this purpose is much larger than that appropriated last year. Meanwhile the Commission's investigations should be continued. The number of women and girls employed in occupations already covered by the Commission's investigations is certainly not much more than a quarter of the total number of female employees in Massachusetts industries, and is probably less than that. It is manifest, therefore, that the Commonwealth has only made a beginning, though a good beginning, in the task of securing as far as possible that the women who work for their living shall at least make a living by their work.

Respectfully submitted,

EDWIN N. BARTLETT, *Chairman.*

MABEL GILLESPIE.

ARTHUR N. HOLCOMBE.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following tabular statement showing the number of establishments inspected and the number of wage records secured in the investigations conducted by the Commission during 1916, together with a summary of the expenditure of the appropriation for that year granted by the General Court.

STATEMENT REGARDING INVESTIGATIONS MADE BY THE MINIMUM WAGE COMMISSION IN 1916.

As shown by the following tables, the Commission has during the past year secured records relating to the wages paid to over 35,500 women and girls. Of these, the records classed as "available for tabulation" for women employed in the garment trades and in hotels and restaurants which are open all through the year cover the actual wages paid during a fifty-two-week period. Records from the retail stores and the seasonal hotels and restaurants cover rates of payment and actual wages paid for one or more specimen weeks of work. In addition to the investigations noted below, agents of the Commission assisted the Women's Clothing Wage Board in its study relative to the cost of production conducted in May and June of last year.

Investigations made under Section 3 of the Minimum Wage Law.

INDUSTRY.	NUMBER OF ESTABLISHMENTS INVESTIGATED.			NUMBER OF WOMEN FOR WHOM WAGE RECORDS WERE OBTAINED.		
	Wage Records available.	Wage Records Lacking or Inadequate, etc. ¹	Total.	Records Tabulated.	Records excluded from Tabulation. ²	Total.
<i>Garment Trades.</i>						
Men's clothing,	28	29	57	1,132	445	1,577
Raincoats,	15	23	43	626	105	731
Men's shirts,	6	3	9	1,242	230	1,472
Overalls and duck coats,	8	7	15	401	73	474
Men's neckwear,	5	5	10	276	46	322
Suspenders, etc.,	4	2	6	739	211	950
Muslin underwear,	7	—	7	960	199	1,159
Petticoats,	7	5	12	265	41	306
Aprons and kimonos,	8	11	19	380	296	676
Women's neckwear,	8	2	10	516	361	877
<i>Hotels and Restaurants.</i>						
Hotels (all the year round),	88	15	103	2,710	1,094	3,804
Hotels (seasonal),	33	3	36	920	170	1,090
Restaurants (all the year round),	84	38	122	2,922	1,533	4,455
Restaurants (seasonal),	3	1	4	59	—	59
Total,	304	149	453	13,148	4,804	17,952

¹ See Massachusetts Minimum Wage Commission, Bulletin No. 13, p. 13.² *Ibid.*, p. 14.*Investigation made under Section 14 of the Minimum Wage Law.*

INDUSTRY.	Number of Establishments investigated.	NUMBER OF WOMEN FOR WHOM WAGE RECORDS WERE OBTAINED.		
		Regulars.	Extras.	Total.
Retail stores,	970	16,500 ¹	1,000 ¹	17,500 ¹

¹ Approximate figures.

FINANCIAL STATEMENT.

Appropriations: —

Salaries and expenses of commissioners, . . .	\$2,000 00	
Salary of the secretary,	2,000 00	
Clerical assistance,	3,200 00	
Salaries of special agents,	4,000 00	
Compensation and expenses of wage boards, .	2,000 00	
Office rent,	1,600 00	
Traveling and contingent expenses, . . .	2,600 00	
	<hr/>	\$17,400 00

Expenditures: —

Salaries and expenses of commissioners, . . .	\$1,604 48
Salary of the secretary,	2,000 00
Clerical assistance,	3,199 85
Salaries of special agents,	4,000 00
Compensation and expenses of wage boards, .	1,419 89
Office rent,	1,599 96

Traveling and contingent expenses: —

Traveling expenses,	\$729 19
Telephone and telegraph,	181 17
Express and messenger,	11 37
Stationery and office supplies,	406 24
Printing,	887 67
Postage,	74 25
Books, periodicals, clippings,	143 05
Advertising,	141 19
Miscellaneous,	18 10
	<hr/>
	2,592 23

\$16,416 41

Unexpended balance reverting
to State treasury: —

Salaries and expenses of com- missioners,	\$395 52
Clerical assistance,	15
Compensation and expenses of wage boards,	580 11
Office rent,	04
Contingent expenses,	7 77
	<hr/>
	983 59

\$17,400 00

Yours respectfully,

ELLEN NATHALIE MATTHEWS,

Secretary.

APPENDICES.



APPENDIX No. 1.

MINIMUM WAGE LEGISLATION OF THE COMMON-WEALTH OF MASSACHUSETTS.

CHAPTER 706, ACTS OF 1912, AS AMENDED BY CHAPTERS 330 AND 673, ACTS OF 1913, CHAPTER 368, ACTS OF 1914, AND CHAPTER 303, GENERAL ACTS OF 1916.

AN ACT TO ESTABLISH THE MINIMUM WAGE COMMISSION AND TO PROVIDE FOR THE DETERMINATION OF MINIMUM WAGES FOR WOMEN AND MINORS.

Be it enacted, etc., as follows:

SECTION 1. There is hereby established a commission to be known as the Minimum Wage Commission. It shall consist of three persons, one of whom shall be an employer of female labor and one of whom may be a woman and one a representative of labor, to be appointed by the governor, with the advice and consent of the council. One of the commissioners shall be designated by the governor as chairman. The first appointments shall be made within ninety days after the passage of this act, one for a term ending October first, nineteen hundred and thirteen, one for a term ending October first, nineteen hundred and fourteen, and one for a term ending October first, nineteen hundred and fifteen; and beginning with the year nineteen hundred and thirteen, one member shall be appointed annually for the term of three years from the first day of October and until his successor is qualified. Any vacancy that may occur shall be filled in like manner for the unexpired part of the term.

SECTION 2. Each commissioner shall be paid ten dollars for each day's service, in addition to the traveling and other expenses incurred in the performance of his official duties. The commission may appoint a secretary, who shall be the executive officer of the board and to whose appointment the rules of the civil service commission shall not apply. It shall determine his salary, subject to the approval of the governor and council. The commission may incur other necessary expenses not exceeding the annual appropriation therefor, and shall be provided with an office in the state house or in some other suitable building in the city of Boston.

SECTION 3. It shall be the duty of the commission to inquire into the wages paid to the female employees in any occupation in the commonwealth, if the commission has reason to believe that the wages paid to a substantial number of such employees are inadequate to supply the necessary cost of living and to maintain the worker in health.

SECTION 4. If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of an equal number of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public; but the representatives of the public shall not exceed one-half of the number of representatives of either of the other parties. The commission shall give notice to employers and employees in said occupation by publication or otherwise of its determination to establish a wage board and shall request that said employers and employees, respectively, nominate representatives for said board by furnishing names to the commission. The representatives of employers and employees shall be selected by the commission from names furnished by the employers and by the employees, respectively, provided that these names are furnished within ten days after the request of the commission. The commission shall designate as chairman one of the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determination of the boards. The members of wage' boards shall be compensated at the same rate as jurors, and they shall be allowed the necessary traveling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission.

SECTION 5. The commission may transmit to each wage board all pertinent information in its possession relative to the wages paid in the occupation in question. Each wage board shall take into consideration the needs of the employees, the financial condition of the occupation and the probable effect thereon of any increase in the minimum wages paid, and shall endeavor to determine the minimum wage, whether by time rate or piece rate, suitable for a female employee of ordinary ability in the occupation in question, or for any or all of the branches thereof, and also suitable minimum wages for learners and apprentices and for minors below the age of eighteen years. When a majority of the members of a wage board shall agree upon minimum wage determinations, they shall report such determinations to the commission, together with the reasons therefor and the facts relating thereto.

SECTION 6. Upon receipt of a report from a wage board, the commission shall review the same, and may approve any or all of the determinations recommended, or may disapprove any or all of them, or may recommit the subject to the same or to a new wage board. If the commission approves any or all of the determinations of the wage board it shall, after not less than fourteen days' notice to employers paying a wage less than the minimum wage approved, give a public hearing to such employers, and if, after such public hearing, the commission finally approves the determination, it shall enter a decree of its findings and note thereon the names of employers, so far as they may be known to the commission, who fail or refuse to accept such minimum wage and to agree to abide by it. The commission shall thereafter publish at such times and in such manner as it may deem advisable a summary of its findings and of its recommendations. It shall also at such times and in such manner as it shall deem advisable publish the facts, as it may find them to be, as to the acceptance of its recommendations by the employers engaged in the industry to which any of its recommendations relate, and may publish the names of employers whom it finds to be following or refusing to follow such recommendations. An employer who files a declaration under oath in the supreme judicial court or the superior court to the effect that compliance with the recommendation of the commission would render it impossible for him to conduct his business at a reasonable profit shall be entitled to a review of said recommendation by the court under the rules of equity procedure. The burden of proving the averments of said declaration shall be upon the complainant. If, after such review, the court shall find the averments of the declaration to be sustained, it may issue an order restraining the commission from publishing the name of the complainant as one who refuses to comply with the recommendations of the commission. But such review, or any order issued by the court thereupon, shall not be an adjudication affecting the commission as to any employer other than the complainant, and shall in no way affect the right of the commission to publish the names of those employers who do comply with its recommendations. The type in which the employers' names shall be printed shall not be smaller than that in which the news matter of the paper is printed. The publication shall be attested by the signature of a least a majority of the commission.

SECTION 7. Repealed.

SECTION 8. Whenever a minimum wage rate has been established in any occupation, the commission may, upon petition of either employers or employees, reconvene the wage board or establish a new wage board, and any recommendation made by such board shall be dealt with in the same manner as the original recommendation of a wage board.

SECTION 9. For any occupation in which a minimum time rate

only has been established, the commission may issue to any woman physically defective a special license authorizing the employment of the licensee for a wage less than the legal minimum wage: *provided*, that it is not less than the special minimum wage fixed for that person.

SECTION 10. The commission may at any time inquire into the wages paid to minors in any occupation in which the majority of employees are minors, and may, after giving public hearings, determine minimum wages suitable for such minors. When the commission has made such a determination, it may proceed in the same manner as if the determination had been recommended to the commission by a wage board.

SECTION 11. Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and shall on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court.

SECTION 12. Upon request of the commission, the director of the bureau of statistics shall cause such statistics and other data to be gathered as the commission may require, and the cost thereof shall be paid out of the appropriation made for the expenses of the commission.

SECTION 13. Any employer who discharges or in any other manner discriminates against any employee because such employee has testified, or is about to testify, or has served or is about to serve upon a wage board, or is or has been active in the formation thereof, or has given or is about to give information concerning the conditions of such employee's employment, or because the employer believes that the employee may testify, or may serve upon a wage board, or may give information concerning the conditions of the employee's employment, in any investigation or proceeding relative to the enforcement of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than two hundred dollars and not more than one thousand dollars for each offence.

SECTION 14. The commission shall from time to time determine whether employers in each occupation investigated are obeying its decrees, and shall publish in the manner provided in section six, the name of any employer whom it finds to be violating any such decree.

SECTION 15. Any newspaper refusing or neglecting to publish the findings, decrees or notices of the commission at its regular rates for

the space taken shall, upon conviction thereof, be punished by a fine of not less than one hundred dollars for each offence.

SECTION 16. No member of the commission and no newspaper publisher, proprietor, editor or employee thereof, shall be liable to an action for damages for publishing the name of any employer in accordance with the provisions of this act, unless such publication contains some wilful misrepresentation.

SECTION 17. The commission shall, annually, on or before the first Wednesday in January, make a report to the general court of its investigations and proceedings during the preceding year.

SECTION 18. This act shall take effect on the first day of July in the year nineteen hundred and thirteen. [*Approved June 4, 1912.*]

CHAPTER 65, GENERAL ACTS OF 1915.

AN ACT TO PROVIDE FOR THE POSTING OF INFORMATION IN PLACES OF EMPLOYMENT.

Be it enacted, etc., as follows:

SECTION 1. The minimum wage commission may require employers to post in conspicuous positions in their places of employment such notices as the said commission may issue for the information of employees.

SECTION 2. This act shall take effect upon its passage. [*Approved March 12, 1915.*]

APPENDIX No. 2.

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS UP TO JAN. 1, 1917.

BRUSH DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Brush Makers' Wage Board, after public hearing thereupon held June 29, 1914, and for the reasons set forth in its opinion of even date, in accordance with St. 1912, c. 706, par. 6, makes the following decree:—

1. The lowest time wage paid to any experienced female employee in the brush industry shall be $15\frac{1}{2}$ cents an hour.

2. The rate for learners and apprentices shall be 65 per cent. of the minimum, and the period of apprenticeship shall not be more than one year.

3. These findings shall apply also to all minors.

4. If in any case a piece rate yields less than the minimum time rate, persons employed under such rate shall be paid at least $15\frac{1}{2}$ cents an hour.

5. This decree shall take effect on Aug. 15, 1914, and shall remain in effect until altered by the Commission.

By the order of

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

H. LARUE BROWN, *Chairman*.
MABEL GILLESPIE.
ARTHUR N. HOLCOMBE.

Attest:

AMY HEWES,
Secretary.

LAUNDRY DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Laundry Wage Board, after public hearing thereupon held June 14, 1915, and for reasons set forth in its statement of even date, in accordance with St. 1912, c. 706, par. 6, as amended, makes the following decree: —

1. No experienced female employee of ordinary ability shall be employed in any laundry in Massachusetts at a rate of wages less than \$8 a week.

2. No female employee of ordinary ability shall be deemed inexperienced who has been employed in laundries for one year or more.

3. A female employee shall be deemed to have been employed in the industry for a year if her absences from her place or places of employment during twelve months, whether consecutive or non-consecutive, have not been of unreasonable duration.

4. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees, provided: —

(a) That no female employee of ordinary ability who has been employed in laundries for nine months shall be employed at a rate of wages less than \$7.50 a week.

(b) That no female employee of ordinary ability who has been employed in laundries for six months shall be employed at a rate of wages less than \$7 a week.

(c) That no female employee of ordinary ability who has been employed in laundries for three months shall be employed at a rate of wages less than \$6.50 a week.

(d) That no other female employee of ordinary ability shall be paid at a rate of wages less than \$6 a week.

5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage provided that the conditions of section 9, chapter 706, Acts of 1912, as amended, are complied with.

6. These recommendations shall take effect on Sept. 1, 1915, on which date all female employees of ordinary ability who have been employed in the industry for one year or more shall be deemed to have served an apprenticeship of one year, and all others shall be deemed to have begun their apprenticeship, and to be entitled to the rates as specified above.

In order to facilitate the enforcement of this order the Commission recommends that a female employee on leaving

her employment in any establishment receive a card showing the time she has worked in that establishment.

By the order of the

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

ROBERT E. BISBEE, *Chairman.*
MABEL GILLESPIE.
ARTHUR N. HOLCOMBE.

Attest:

AMY HEWES,
Secretary.

JULY 1, 1915.

RETAIL STORE DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Retail Store Wage Board, after public hearings thereupon held Aug. 23 and Aug. 26, 1915, and for reasons set forth in its statement of even date, in accordance with St. 1912, c. 706, par. 6, as amended, makes the following decree:—

1. No experienced female employee of ordinary ability shall be employed in retail stores in Massachusetts at a rate of wages less than \$8.50 a week.

2. No female employee of ordinary ability shall be deemed inexperienced who has been employed in a retail store or stores for one year or more, after reaching the age of eighteen years.

3. A female employee shall be deemed to have been employed in the industry for a year if her absences from her place or places of employment during twelve months, whether consecutive or non-consecutive, have not been of unreasonable duration.

4. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees, provided:—

(a) That no female employee of ordinary ability who has reached the age of eighteen years shall be employed at a rate of wages less than \$7 a week.

(b) That no female employee of ordinary ability who has reached the age of seventeen years shall be employed at a rate of wages less than \$6 a week.

(c) That no other female employee of ordinary ability shall be paid at a rate of wages less than \$5 a week.

5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage provided that the conditions of section 9, chapter 706, Acts of 1912, are complied with.

6. These recommendations shall take effect on January 1, 1916, on which date all female employees of ordinary ability who have been employed in the industry for one year or more after reaching the age of eighteen shall be deemed to have served an apprenticeship of one year, and all others shall be deemed to have begun their apprenticeship, and to be entitled to the rates as specified above.

In order to facilitate the enforcement of this order the Commission recommends that a female employee on leaving her employment in any establishment receive a card showing the time she has worked in that establishment.

By the order of the

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

ROBERT E. BISBEE, *Chairman.*
MABEL GILLESPIE.
ARTHUR N. HOLCOMBE.

Attest:

AMY HEWES,
Secretary.

SEPT. 15, 1915.

WOMEN'S CLOTHING DECREE.

The Minimum Wage Commission of the Commonwealth of Massachusetts, having before it the report of the Women's Clothing Wage Board, after public hearing thereon held Aug. 3, 1916, and for reasons set forth in its statement of even date, in accordance with St. 1912, c. 706, par. 6, as amended, makes the following decree: —

1. No experienced female employee of ordinary ability shall be employed in the manufacture of women's cloaks, suits, skirts, dresses and waists in Massachusetts at a rate of wages less than \$8.75 a week.

2. No female employee of ordinary ability shall be deemed inexperienced who has been employed in the women's clothing industry for one and a half years or more, after reaching the age of eighteen years.

3. A female employee shall be deemed to have been employed in the industry for a year and a half if her absences from her place or

places of employment during that period have not been of unreasonable duration.

4. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees, provided:—

(a) That no female employee of ordinary ability who has reached the age of eighteen years shall be employed at a rate of wages less than \$7 a week.

(b) That no other female employee of ordinary ability shall be paid at a rate of wages less than \$6 a week.

5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage, provided that the conditions of section 9, chapter 703, Acts of 1912, are complied with.

6. These recommendations shall take effect on February 1, 1917, on which date all female employees of ordinary ability who have been employed in the industry for a year and a half after reaching the age of eighteen shall be deemed to have served their apprenticeship, and all others shall be deemed to have begun their apprenticeship, and to be entitled to the rates as specified above.

In order to facilitate the enforcement of this order the Commission recommends that a female employee on leaving her employment in any establishment receive a card showing the time she has worked in that establishment.

By the order of the

MINIMUM WAGE COMMISSION
OF THE COMMONWEALTH OF MASSACHUSETTS.

ARTHUR N. HOLCOMBE.
MABEL GILLESPIE.

Attest:

E. N. MATTHEWS,
Secretary.

SEPT. 28, 1916.

APPENDIX No. 3.

MINIMUM WAGE DECREES ESTABLISHED IN THE UNITED STATES UP TO JAN. 1, 1917.¹

The Commission is indebted to the American Association for Labor Legislation for the privilege of reprinting the following table from Vol. VI, No. 4, of the "Review of Labor Legislation:" —

I STATE	II PART OF STATE COVERED	III KINDS OF WORK COVERED	IV WORKERS AFFECTED		VI WAGE RATES	VII REMARKS
			CLASS	AGE		
Arkansas.	All.	Manufacturing, except cotton factories, and canneries, mechanical, mercantile, laundry, express, transportation, restaurant, telephone.	Experienced females.	Any.	\$1.25 daily.	To be deemed "experienced" after 6 months' apprenticeship. Law does not apply to establishments employing less than 4 females or less than 4 persons at the same time in the same building on the same kind of work.
			Learners and apprentices.		\$1 daily.	
		Millinery.	Experienced females.		\$1.25 daily.	

¹ Apply only to females unless otherwise stated.

Minimum Wage Decrees established in the United States up to Jan. 1, 1917¹—Continued.

I STATE	II PART OF STATE COVERED	III KINDS OF WORK COVERED	IV WORKERS AFFECTED		VI WAGE RATES	VII REMARKS
			CLASS	AGE		
Arkansas—Con.	All.	Millinery—Con.	Apprentices: (1) Under 1 month's experience. (2) 1-2 months' experience. (3) 2-3 months' experience. (4) 3-6 months' experience.		(1) \$15 monthly. (2) \$17.50 monthly. (3) \$20 monthly. (4) \$1 daily.	
			Experienced time workers.	Any.	\$16 an hour.	To be deemed "experienced" after 3 weeks' employment.
California.	All.	Fruit and vegetable canning. Fruit and vegetable canning. (1) Cutting apricots. (2) Cutting and peeling pears. (3) Cutting cling peaches. (4) Cutting free peaches. (5) Peeling tomatoes. (6) Canning all varieties of fruit (size of can No. 2½). (7) Canning all varieties of fruit (size of can No. 10). (8) Canning tomatoes (size of can No. 2½). (9) Canning tomatoes (size of can No. 10).	Inexperienced time workers.		\$13 an hour.	
			All piece workers.		(1) \$.09 per 40 lbs. (2) \$.15 per 40 lbs. (3) \$.09 per 40 lbs. (4) \$.05 per 40 lbs. (5) \$.03 per 12 quarts. (6) \$.015 per doz. cans. (7) \$.036 per doz. cans. (8) \$.01 per doz. cans. (9) \$.024 per doz. cans.	"emergency work" (12 hours' overtime weekly for women over 18) to be at least 1¼ times those stated.

Massachusetts.	All.	Brush industry.	Experienced time workers.	Any.	\$155 an hour.	Piece rates also to yield at least \$.155 an hour.
			Learners and apprentices — time workers.		65 per cent. of above (about \$.10).	Time of apprenticeship not more than 1 year.
		Laundry.	Experienced females of ordinary ability.		\$8 weekly.	To be deemed "experienced" after 1 year's apprenticeship if absences during that period have not been of unreasonable duration. For females of less than ordinary ability wage fixed by special license.
			Learners and apprentices: (1) Under 3 months' experience. (2) 3-6 months' experience. (3) 6-9 months' experience. (4) 9-12 months' experience.		(1) \$8 weekly. (2) \$6.50 weekly. (3) \$7 weekly. (4) \$7.50 weekly.	
		Retail stores.	Experienced females of ordinary ability.	19 or over.	\$8.50 weekly.	As above. Extra or part time workers to receive at least same scale of pay pro rata for time actually employed.
			Learners and apprentices.	(1) 18 or over. (2) 17. (3) Less than 17.	(1) \$7 weekly. (2) \$6 weekly. (3) \$5 weekly.	
		Women's clothing factories (cloak, suit, skirt, dress, and waist-shops). ²	Experienced females of ordinary ability.	19½ or over.	\$8.75 weekly.	To be deemed "experienced" after 1½ years' apprenticeship after reaching 18 if absences during that period have not been of unusual duration. For females of less than ordinary ability wage fixed by special license.
			Learners and apprentices.	(1) 18 or over. (2) Less than 18.	(1) \$7 weekly. (2) \$6 weekly.	

¹ Apply only to females unless otherwise stated.² The dates when awards became effective have been omitted inasmuch as they were all supposed to be in effect before the publication of this review, except this award in Massachusetts, which becomes effective Feb. 1, 1917.

Minimum Wage Decrees established in the United States up to Jan. 1, 1917¹.—Continued.

I STATE	II PART OF STATE COVERED	III KINDS OF WORK COVERED	IV WORKERS AFFECTED		VI WAGE RATES	VII REMARKS
			CLASS	AGE		
Minnesota. ²	(1) First-class cities, (2) Second, third, and fourth class cities. (3) Outside first, second, third, and fourth class cities.	Mercantile, office, wait- ress, hair-dressing occu- pations.	Experienced women and minors of or- dinary ability.	Any.	(1) \$9 weekly. (2) \$8.50 weekly. (3) \$8 weekly.	
	(1) First-class cities, (2) Second, third, and fourth class cities. (3) Outside first, second, third, and fourth class cities.	Manufacturing, mechan- ical, telephone, tele- graph, laundry, dyeing, dry cleaning, lunch- room, restaurant or ho- tel occupation.			(1) \$8.75 weekly. (2) \$8.25 weekly. (3) \$8 weekly.	
	(1) Portland.	Manufacturing, personal service, laundry, tele- phone, telegraph, pub- lic housekeeping.	Experienced fe- males—time workers.	Over 18.	\$8.64 weekly.	To be deemed "experi- enced" after 1 year's ap- prenticeship. In any oc- cupation \$1.40 may be de- ducted if lodging is fur- nished by employer, \$2.80 if board (21 meals) is sup- plied. A fraction of a week's lodging or board to be computed on above basis.
	(2) State outside Portland.	Mercantile. Office. Mercantile, manufactur- ing, personal service, laundry, telephone, telegraph, office, public housekeeping.			\$9.25 weekly. \$40 monthly. \$8.25 weekly.	
Oregon.						

Utah. Rates fixed by Laws 1913, C. 63.	(1) Portland. (2) State outside Portland.	Manufacturing, laundry.	Experienced fe- males-piece workers.	(1) \$8.64 weekly av- erage. (2) \$5.25 weekly av- erage.	At least 75 per cent. to be paid not less than mini- mum weekly average.
All.	All.	Mercantile, manufactur- ing, personal service, laundry, telegraph, of- fice, public housekeep- ing.	Experienced: (1) Under 4 months' experience. (2) 4-8 months' ex- perience. (3) 8-12 months' ex- perience.	(1) \$6 weekly. (2) \$7 weekly. (3) \$8 weekly.	Apprentices in manufactur- ing and laundries may be paid prevailing piece rates for first 3 weeks; there- after must be paid at least \$6 weekly.
			Apprentices: (1) Under 3 months' experience. (2) 3-6 months' ex- perience. (3) 6-9 months' ex- perience. (4) 9-12 months' ex- perience.	(1) \$6 weekly. (2) \$6.60 weekly. (3) \$7.20 weekly. (4) \$7.80 weekly.	
			Minors (boys and girls).	(1) \$6 weekly. (2) \$.075 hourly. (3) \$.05 hourly.	
		Any occupation.	Experienced fe- males.	\$1.25 daily.	Except as otherwise ar- ranged by commission for apprentices. To be deemed "experi- enced" after 1 year's ap- prenticeship.
			Apprentices.	\$90 daily.	
All.	All.	All.	All females.	\$75 daily.	

¹ Apply only to females unless otherwise stated.² All the Minnesota awards have been held up by injunction.

Minimum Wage Decrees established in the United States up to Jan. 1, 1917¹ — Continued.

I STATE	II PART OF STATE COVERED	III KINDS OF WORK COVERED	IV WORKERS AFFECTED		V AGE		VI WAGE RATES	VII REMARKS
			CLASS					
Washington. ²	All.	Mercantile (includes cigar and news stands).	Experienced females.	Over 18.			\$10 weekly.	Commission may issue licenses for apprentices on application of apprentices themselves good for not more than 1 year. Not all adult female employees may be apprentices, of whom only 50 per cent. may be paid less than \$7.50. No apprenticeship necessary for cigar and news stands.
			Apprentices: (1) Under 6 months' experience.				(1) \$6 weekly.	
			(2) 6-12 months' experience.				(2) \$7.50 weekly.	
			Persons of either sex.	Under 18.			\$6 weekly.	
			Experienced females.	Over 18.			\$3.00 weekly.	
		Any factory establishment.	Persons of either sex.	Under 18.			\$6 weekly.	Licenses issued to apprentices range from 1 month to 1 year and from \$1.50 to \$8 weekly in different occupations. Licenses allow in garment factories 1 month's and in glove making 2 weeks' pre-apprenticeship at piece rates.

Laundries and dye works.	Experienced females.	Over 18.	\$9 weekly.	Not more than 25 per cent. of all adult females may be apprentices. On machine, apprenticeship limit of 2 months, and only 50 per cent. may be apprentices.
	Apprentices: (1) Under 3 months' experience. (2) 3-5 months' experience.		(1) \$6 weekly. (2) \$7.50 weekly.	
	Persons of either sex.	Under 18.	\$6 weekly.	
	Experienced females.	Over 18.	\$9 weekly.	
Telegraph.	Apprentices: (1) Under 6 months' experience. (2) 6-12 months' experience.		(1) \$6.50 weekly. (2) \$7.75 weekly.	Special rates on application for rural communities.
	Persons of either sex.	Under 18.	\$6 weekly.	
	Experienced females.	Over 18.	\$9 weekly.	
	Apprentices: (1) Under 3 months' experience. (2) 3-5 months' experience. (3) 5-7 months' experience. (4) 7-9 months' experience.		(1) \$6 weekly. (2) \$6.60 weekly. (3) \$7.20 weekly. (4) \$7.80 weekly.	
Telephone.	Experienced females.	Over 18.	\$9 weekly.	Special rates on application for rural communities.
	Apprentices: (1) Under 3 months' experience. (2) 3-5 months' experience. (3) 5-7 months' experience. (4) 7-9 months' experience.		(1) \$6 weekly. (2) \$6.60 weekly. (3) \$7.20 weekly. (4) \$7.80 weekly.	
	Persons of either sex.	Under 18.	\$6 weekly.	
	Experienced females.	Over 18.	\$9 weekly.	
Seattle, Tacoma, Spokane.	Experienced females.	Over 18.	\$9 weekly.	Special rates on application for rural communities.
	Apprentices: (1) Under 3 months' experience. (2) 3-5 months' experience. (3) 5-7 months' experience. (4) 7-9 months' experience.		(1) \$6 weekly. (2) \$6.60 weekly. (3) \$7.20 weekly. (4) \$7.80 weekly.	
	Persons of either sex.	Under 18.	\$6 weekly.	
	Experienced females.	Over 18.	\$9 weekly.	

¹ Apply only to females unless otherwise stated.

² "Extra help" and those employed on commission must receive the minimum wage, and pieceworkers must be able to average by the month the minimum wage or that stipulated in their licenses. "Any arrangement entered into by parent and employer to allow a rebate to the latter for services of a minor will be considered a violation of both the letter and the spirit of the minimum wage law." If the apprentice rate is less than \$6, minor apprentices may receive the smaller sum, but they need not receive more than \$6 if the apprentice rate exceeds that amount.

Minimum Wage Decrees established in the United States up to Jan. 1, 1917¹ — Concluded.

I STATE	II PART OF STATE COVERED	III KINDS OF WORK COVERED	IV WORKERS AFFECTED		VI WAGE RATES	VII REMARKS
			CLASS	AGE		
Washington — Con.	Other cities and towns.	Telephone — Con.	(1) Under 4 months' experience. (2) 4-9 months' experience.		(1) \$6 weekly. (2) \$7.50 weekly.	
	All.		Persons of either sex.	Under 18.	\$6 weekly.	
		Office work.	Experienced females.	Over 18.	\$10 weekly.	
			Apprentices: (1) General office work, under 6 months' experience. (2) Stenography and bookkeeping, under 3 months' experience.		(1) \$7.50 weekly. (2) \$8 weekly.	
			Persons of either sex.	(1) 16-18. (2) Under 16.	(1) \$7.50 weekly. (2) \$6 weekly.	

Hotel, restaurant, lunch room (including waitresses in department stores, cafés, and lunch-rooms, but excepting waitresses in hotels and restaurants).	All females. Persons of either sex.	Over 18. Under 18.	\$9 weekly. \$7.50 weekly.	No apprenticeship necessary. \$2 weekly may be deducted if employer furnishes lodging, \$3.50 if he supplies board (21 meals); a fraction of a week's board to be computed on above basis. \$5 may be deducted when employer furnishes board and lodging.
Such class of occupation or employment as requires to be learned by apprentices. ²	Apprentices.	Any.	Wages below minimum to be fixed by commission based on previous experience of applicant and particular occupation.	Commission may issue a special license to each employee.

¹ Apply only to females unless otherwise stated.

² The rulings made in accordance with this provision are extremely detailed, and could only be suggested in the table. For a complete presentation the reader is referred to the second biennial report of the Washington Industrial Welfare Commission.

FIFTH ANNUAL REPORT
OF THE
MINIMUM WAGE COMMISSION
OF
MASSACHUSETTS.

FOR THE YEAR ENDING DECEMBER 31, 1917.



BOSTON:
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SUPERVISOR OF ADMINISTRATION.

CONTENTS.

	PAGE
MEMBERS OF THE COMMISSION,	5
 REPORT OF THE COMMISSION: —	
Change in the Personnel of the Commission,	7
Minimum Wage Legislation in the United States in 1917,	8
Minimum Wage Legislation in Foreign Countries, 1914-17,	9
Summary of Activities of the Massachusetts Minimum Wage Com- mission, 1917,	11
The Work of the Wage Boards organized for the Clothing and Fur- nishing Trades, 1917,	12
The Men's Clothing and Raincoat Wage Board,	13
The Men's Furnishings Wage Board,	17
The Women's Muslin Underwear, etc., Wage Board,	20
Investigations conducted by the Commission in 1917: —	
Summary of Results of Investigation into the Wages of Women employed in Restaurants and Hotels,	21
Summary of Results of Investigation into the Wages of Women employed in the Manufacture and Trimming of Millinery, . .	26
Summary of Results of Investigation into the Wages of Women employed as Cleaners in Office and Other Buildings,	29
Public Hearings for Proprietors of Restaurants, Hotels, Millinery Establishments and Office Buildings,	31
The Enforcement of Minimum Wage Determinations: —	
Brush Industry,	32
Laundries,	35
Retail Stores,	35
Women's Clothing Industry,	36
The Outlook for 1918,	39
Recommended Legislation,	40
Appropriation,	41
 REPORT OF THE SECRETARY: —	
Investigations made by the Minimum Wage Commission in 1917, . .	43
Financial Statement,	44
 APPENDIX NO. 1: —	
Minimum Wage Decrees established in Massachusetts up to Jan. 1, 1918,	48
 APPENDIX NO. 2: —	
Proclamation of the Industrial Welfare Commission of the State of Washington,	50

MEMBERS OF THE COMMISSION.

EDWIN N. BARTLETT, *Chairman.*

MABEL GILLESPIE.

ARTHUR N. HOLCOMBE.

ELLEN NATHALIE MATTHEWS, *Secretary.*

The Commonwealth of Massachusetts.

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Massachusetts Minimum Wage Commission herewith respectfully submits its fifth annual report, which contains an account of its proceedings and investigations during the year ending Dec. 31, 1917, together with recommendations for such additional legislation as the experience of the Commission has shown to be necessary. To it is appended the secretary's report, summarizing the activities of the Commission's field and office force during this period and giving the expenditures of the department for the fiscal year ending Nov. 30, 1917. A tabular summary of the recommendations made under the authority of the minimum wage law up to Jan. 1, 1918, is contained in the appendices.

CHANGE IN THE PERSONNEL OF THE COMMISSION.

In October, 1917, the second term of Commissioner Arthur N. Holcombe expired. Mr. Holcombe, one of the earliest advocates of minimum wage legislation in this country, and a member of the Commission from the time of its establishment, was obliged to decline reappointment on account of his absence in Washington in the service of the United States government for the duration of the war. Pending the appointment and confirmation of his successor, he has up to the close of the year continued to give a portion of his time to the work of the Commission.

MINIMUM WAGE LEGISLATION IN THE UNITED STATES IN
1917.

The year which has just come to a close has been one of unusual significance in the history of minimum wage legislation in this country. With the action of the Supreme Court of the United States in April, affirming the decision of the Oregon Supreme Court which sustained the constitutionality of a compulsory minimum wage law for women, the most serious impediment to the enforcement of similar legislation throughout the country has been removed. The effects of this decision have already been seen in the presentation for argument, after delays of from one to three years, of similar cases which were pending in the Superior Courts of Arkansas and Minnesota and the Supreme Court of Massachusetts. Decisions upholding the legislation were rendered by the Arkansas court on June 4, and by the Minnesota court on December 21, and action relative to the Massachusetts case,¹ which was argued on December 12, is expected in the near future.

Notwithstanding the setback to the extension of minimum wage legislation resulting from the delay in the action of the United States Supreme Court with regard to the constitutionality of the Oregon law, statutes providing for the establishment of minimum wages were enacted during the past year by the legislatures of two States, namely, Arizona and Colorado. In addition, an act was passed in North Dakota establishing a commission authorized to investigate wages and working conditions of women and minors and to recommend legislation for the improvement of such conditions. The Arizona law, approved on March 8, establishes a compulsory minimum wage of \$10 per week for all women employed in stores, offices, restaurants, hotels, laundries and manufacturing establishments. In Colorado a preliminary investigating commission was appointed in 1913, but its power expired two years later, and a bill which passed the legislature in 1914, creating a permanent commission with power to establish and enforce minimum wage standards, was

¹ *Holcombe et al. v. Creamer et al.*

vetoed by the Governor and in consequence never became operative. The present law, which went into effect on July 20, 1917, gives to the State Industrial Commission, a body already charged with the administration of the laws relative to hours of labor and workmen's compensation, the power to establish compulsory minimum wages and "standards of conditions of labor and hours of employment" for women and minors employed in any occupation.

In States where minimum wage laws were already in force a number of new orders or recommendations have been put into effect during the past year. Among the most important of these rulings were those affecting women employed in canneries in Oregon, mercantile establishments and laundries in California and Kansas, and in the men's clothing and furnishing goods trades in Massachusetts. In addition to the establishment of orders concerning occupations hitherto unaffected, revised orders for minors and apprentices have been entered by the Industrial Welfare Commissions of Oregon and Washington. While there have been as yet no increases due to the recent rise in living costs in the minimum rates already operative, it is reported that a strong effort is now being made in Oregon and Washington to have existing minimum standards increased for all occupations.¹

MINIMUM WAGE LEGISLATION IN FOREIGN COUNTRIES, 1914-17.

An event of the past year of perhaps almost equal significance to the immediate future of minimum wage legislation as the upholding of the constitutionality of the Oregon law has been the passage, as a war measure, of the British act which provides for the establishment of minimum wages for farm laborers. The enactment of this and similar regulations in other European countries during the years 1914-17 not only gives evidence that the economic conditions result-

¹ On Jan. 7, 1918, a proclamation was issued by the Industrial Welfare Commission of Washington, calling upon the employers in that State to grant a voluntary increase of wages to their employees "to cover this period of the greatly increased cost of living with which we are now burdened." Unless employers respond satisfactorily to this appeal the Commission states that it "will be compelled to take such other action within its power as may be necessary to secure the desired result." The complete text of this proclamation is reprinted in Appendix No. 2.

ing from the war have failed to bring about such increases in the prevailing rates of wages as to render minimum wage legislation unnecessary, but, on the contrary, shows that the need for governmental action has been increased in a large number of trades and occupations.

The minimum wage movement has indeed received a marked impetus in Europe since the outbreak of the war. Four countries in which no such legislation had previously been enacted — namely, France, Germany, Austria and Switzerland — have found it necessary to make provision for the regulation of wages by governmental action as a result of the inadequacy of earnings to meet the rising cost of living.¹ In Great Britain legal minimum rates have been put into effect, under the operation of the Trade Boards Act, in three new trades employing together some 135,000 workers.² In addition the sphere of government control over wages has been extended through the Munitions of War (Amendment) Act of 1916,³ which authorized the Minister of Munitions to issue orders regulating wages in the many establishments

¹ For information regarding these regulations see United States Bureau of Labor Statistics Monthly Review, December, 1915, pp. 36-41, and September, 1916, p. 77 (relating to the minimum wage law for female home workers in the clothing industry in France); March, 1917, pp. 362-365 (regulations as to the wages of workers in munitions factories in France); and December, 1917, pp. 113, 114 (Determination of Wages by the State in Germany, Austria and Switzerland).

² These trades, which were specified under the Trade Boards Provisional Orders Confirmation Act of Aug. 15, 1913, are as follows: sugar confectionery and food preserving, employing about 80,000 workers; shirt-making, employing approximately 40,000 persons; tin box and hollow ware, employing together about 15,000 persons (United States Bureau of Labor Statistics, Bulletin No. 167, p. 174). The minimum rates of wages fixed for these trades became operative in Great Britain on June 7, 1915; July 5, 1915; Nov. 29, 1915; and Jan. 1, 1916, respectively. (Women's Industrial News, London, January, 1916, charts facing pp. 6 and 8.)

³ In a summary of the orders relative to women's wages issued by the Ministry of Munitions up to April, 1917, published in the United States Bureau of Labor Statistics Monthly Review for August, 1917, it is estimated that through the government's efforts in regulating wages in controlled establishments, "approximately 380,000 out of 400,000 women have benefited by wages adequate to maintain them in health and efficiency, while to a very large proportion opportunity has been given to augment their earnings" (p. 119). The wages orders issued by the Ministry of Munitions up to April 1, 1917, apply to women and girls employed in government-controlled establishments engaged in the following trades: arms, ammunitions and ordnance; mechanical, electrical, telegraphic and marine engineering; makers of electric and telegraphic accessories; machine tool manufacture; shipbuilding and repairing; iron and steel works; tube works; lead and copper works; foundries; blast furnaces; wire and cable works; textile and printing machinery; motors and cycles; aircraft; constructional engineering; the manufacture of saws and files; cutlery; silver and electroplate; chemicals; asbestos; rubber; optical and scientific instruments; explosive and filling factories; mica; and wood-work for aircraft (p. 127). A minimum time wage of £1 (\$4.87) per week of forty-eight hours or less, with 6d. (12.2 cents) for each additional hour up to fifty-four, was established for women employed on men's work (p. 125). This rate was increased to 24s. (\$5.76) on April 16, 1917, because of the rising cost of living.

which are under government control, and more recently by the passage of the act mentioned above, providing for the establishment of an Agricultural Wages Board for the fixing of minimum rates for agricultural laborers.¹ Moreover as a result of the general rise in living costs, increases over pre-war rates have been granted both in Great Britain and in the Australian States for the benefit of the workers in a number of the trades for which legal minimum wages had already been established. In Great Britain all of the wages boards except those established for chain-making and embroidery, have made advances in the minimum rates originally fixed.² In New South Wales not only have increases in the wage rates established for individual trades been awarded by a number of wages boards, but two general increases in the basic living wage fixed in February, 1914, have been granted since that date by the Court of Industrial Arbitration.³

SUMMARY OF ACTIVITIES OF THE MASSACHUSETTS MINIMUM WAGE COMMISSION, 1917.

During the year 1917 the Massachusetts Minimum Wage Commission has completed its reports on the wages of women in the men's clothing and furnishing trades and certain branches of the women's clothing industry not previously investigated, preliminary statements of which were contained in the last annual report, has established three wage boards to recommend minimum wage rates for women employed in these trades, and has approved the recommendations of the two boards which have already reported their findings to the Commission.

Inquiries into the wages of women employed in hotels and restaurants and in the making and trimming of millinery, begun in 1916, have also been completed. In addition, the Commission has made a comprehensive investigation of the wages and conditions of labor of women employed in the

¹ Corn Production Act of Aug. 21, 1917. For analysis of the provisions of this act relating to the establishment of an Agricultural Wages Board, see United States Bureau of Labor Statistics Monthly Review for January, 1918, pp. 97-100.

² Andrews, I. O., & Hobbs, M. A., *Economic Effects of the War upon Women and Children in Great Britain*, Oxford University Press, 1918.

³ United States Bureau of Labor Statistics Monthly Review, February, 1917, pp. 296-299.

cleaning and care of office buildings, and has commenced an investigation of the wages of women engaged in the manufacture and finishing of cotton textile goods. Public hearings have been held for proprietors of hotels and restaurants, millinery establishments and office buildings for the purpose of considering the advisability of establishing wage boards for the determination of minimum wages for women employed in these occupations, and the evidence presented at these hearings is now under consideration by the Commission.

Inspections have also been made of the pay-roll records of brush factories, retail stores, women's clothing factories and custom dressmaking and tailoring establishments, for the purpose of ascertaining whether employers were complying with the recommendations of the Commission relative to the payment of the women and girls in their employ.

THE WORK OF THE WAGE BOARDS ORGANIZED FOR THE CLOTHING AND FURNISHING TRADES, 1917.

At the close of the year 1916, as noted in its last report, the Commission had just completed a study of the wages paid to women in the men's clothing and furnishing trades¹ and in those branches of the women's clothing industry² not covered by the recommendations of the women's clothing wage board.³

A summary of the facts relating to the wages paid to women in these trades as found in the Commission's investigation was presented in the last annual report. The results of the investigation having shown that in each of the branches of these trades the wages paid to a substantial number of the females therein employed were "inadequate to supply the necessary cost of living and to maintain the

¹ Minimum Wage Commission, Bulletin No. 13, Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts, and Bulletin No. 15, Wages of Women in Shirt, Working-men's Garment, and Furnishing Goods Factories in Massachusetts.

² Minimum Wage Commission, Bulletin No. 14, Wages of Women in Muslin Underwear, Petticoat, Apron, Kimono, Women's Neckwear and Children's Clothing Factories in Massachusetts.

³ The report of this board, which was established to recommend minimum wage rates for women and girls employed in the manufacture of women's cloaks, suits, skirts, dresses and waists, was approved by the Commission on Sept. 28, 1916, the recommended rates to become effective on the first day of the following February.

worker in health," the most immediate duty before the Commission at the beginning of the new year was the establishment of wage boards to recommend minimum wage rates for the women employees in these trades. In November, 1916, public hearings were held in Boston and Worcester for employers of women engaged in the manufacture of men's clothing and furnishing goods for the purpose of presenting to them the results of the Commission's investigations. No evidence was presented at either of these hearings to show that a wage board or boards should not be established. In response to an inquiry made by the Commission regarding the number of boards which should be organized for these trades, the manufacturers expressed themselves at the hearings and in subsequent correspondence as uniformly in favor of the establishment of two boards, one for the men's outer clothing and raincoat industry, the other for the shirt, overall and furnishing trades.

The Men's Clothing and Raincoat Wage Board.

The Commission proceeded first to organize a wage board for the men's clothing and raincoat trades, which held its first meeting on April 23. The board consisted of fifteen members, including six employers and six employees, four persons on each side representing the men's clothing trade and two the raincoat trade, and three disinterested persons representing the public. Prof. William Z. Ripley of Harvard University acted as chairman of the board, and the other representatives of the public were Miss Frances Van Baalen of Brookline and Mr. A. E. Pinanski of Boston. After eleven meetings the board submitted to the Commission a unanimous report recommending a minimum wage of \$9 for experienced workers and \$7 for apprentices.

The report of this board is of peculiar interest, since it was the first wage board established in this State to undertake its work under war conditions and to face the problem of adjusting a schedule of minimum wage rates to the rapid changes in the cost of living and in the profits of industry due to the war. In submitting its recommendations to the Commission, the board specifically stated that these recommendations

were based only upon costs and conditions then existing (June, 1917), and that these conditions were "so abnormal and so likely to be temporary that the recommendation of a \$9 minimum wage is made with the express understanding that the conclusions of the Board are but tentative, and that it should in all probability be revised by subsequent procedure, in order that hardship either to employers or employees shall not result."

In determining the needs of the employees, the first duty imposed by law upon a wage board, the following detailed budget was unanimously agreed upon by the members of this board as the lowest sum upon which a self-supporting woman in the men's clothing and raincoat industry in Massachusetts could maintain herself in decency and health:—

	Per Week.
Board and room,	\$5 50
Clothing,	1 90
Laundry,	35
Car fare,	40
Doctor and dentist,	25
Church,	10
Vacation,	25
Education,	15
Recreation,	25
Savings and insurance,	50
Organization dues,	15
Incidentals,	20
<hr/>	
Total,	\$10 00

After determining the minimum cost of living, the next duty of the board was to consider the financial condition of the industry and the probable effect thereon of an increase to \$10 a week in the minimum wages paid. With regard to the method and result of its fulfilment of this duty the board reported as follows:—

Based upon the experience of preceding wage boards as to the futility of attempting a general investigation in detail concerning either financial condition or wage costs, no formal inquiry was attempted. Unwillingness of many employers to report such data,

and especially the uncertainty of war conditions, stood in the way of even a modest attempt along these lines. A preliminary survey [of the industry] as reported by the Minimum Wage Commission itself¹ and the report of a subcommittee of employers, members of this board, were relied upon in reaching the conclusion as to the applicability of this minimum wage of \$10 per week to the Massachusetts men's clothing and raincoat industry.

During the spring of 1917, the condition of business in these industries was, on the whole, favorable up to the middle of April when war was declared. Immediately thereafter the wholesale trade suffered from a large number of cancellations from retailers. These cancellations were due to the abnormal weather conditions during the spring, but more especially, after the declaration of war, to the widespread disinclination of young men to buy clothing until they knew whether or not they were going to be drafted. The result was to leave many retailers overstocked with clothing for men under the age of thirty, — one of the most profitable branches of the business. More or less unrest among employees throughout the country, and especially in Massachusetts, prevailed during the early part of 1917. In Boston a general reduction of two hours per week and an increase of 10 per cent. in wages for piece workers and 6 per cent. for week workers took place at that time. Not less unfavorable, so far as cost of operation and profits is concerned, than the foregoing conditions is the abnormal price of woolen goods and trimmings. They reached quotations in 1917 which exceeded all previous records. The result as reflected both in quality and selling price must inevitably be a substantially decreased volume of business. *In the light of all the foregoing circumstances, it was therefore the unanimous opinion of the board, employers and employees alike, that it would be unwise to impose so heavy a burden upon the industry as the budget determined upon would entail.*

Conditions apparently were not so unfavorable in the raincoat business, especially as regards the effect of army conditions. Whether the war would, or would not, prejudicially affect Massachusetts, depended largely upon the number of government contracts which might be locally awarded. At the time of this finding, however, conditions were so uncertain in this regard that it was thought best to include the raincoat industry along with the other in the abatement of the finding.

It was the opinion of the board that the foregoing conditions were so abnormal and so likely to be temporary that their wage determination must inevitably be revised in the near future. The way under the minimum wage law is, however, open for such revision whenever a sufficient interest in the subject develops on either side to cause the

¹ Massachusetts Minimum Wage Commission, Bulletin No. 13, Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts.

necessary steps to be taken. This finding of \$9 is made, therefore, *with the express understanding that its conclusions are but tentative, and that it should in all probability be revised by such subsequent procedure, in order that hardship either to employers or employees shall not result.*

The recommendations of the board were tentatively approved by the Commission in August, and after a public hearing held thereon for employers, at which no one appeared to present evidence to show that the minimum rates recommended were unreasonable, the Commission by unanimous vote approved the determinations of the board and entered the following decree, the provisions of which take effect on Jan. 1, 1918:—

1. No experienced female employee of ordinary ability shall be employed in the manufacture of men's and boys' outer garments (suits, coats, vests, trousers and overcoats) and men's, women's and children's raincoats in Massachusetts at a rate of wages less than \$9 a week.

2. No female employee of ordinary ability of eighteen years of age or over shall be deemed inexperienced who has been employed in the men's clothing and raincoat industry for one year or more.

3. A female employee shall be deemed to have been employed in the industry for a year if her absences from her place or places of employment during that period have not been of unreasonable duration.

4. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees provided that no female employee of ordinary ability who, irrespective of age, has had at least three months' experience in the men's clothing and raincoat industry shall be employed at a rate of wages less than \$7 a week.

5. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage, provided that the conditions of section 9, chapter 706, Acts of 1912, are complied with.

6. These recommendations shall take effect on Jan. 1, 1918, on which date all female employees of ordinary ability of eighteen years of age or over who have been employed in the industry for at least one year shall be deemed to have served their apprenticeship, and all others shall be deemed to have begun their apprenticeship, and to be entitled to such rates as are specified above.

The Men's Furnishings Wage Board.

As soon as the organization of the Men's Clothing and Raincoat Wage Board had been completed the Commission proceeded to the establishment of a second board to recommend minimum wage rates for women employed in the manufacture of men's and boys' shirts, overalls and other workingmen's garments, men's neckwear and other furnishings, and men's, women's and children's garters and suspenders. Because of the length of the full title of this board, it was decided that for convenience it should be known as the Men's Furnishings Wage Board. In response to the notice given to employers and employees of the Commission's intention to establish this board, nominations were received for eleven persons to represent the employers and fifteen persons to represent the employees. Three of the nominations made by individual employers were withdrawn before the expiration of the ten-day period in which nominations are legally valid,¹ and the names of six persons unanimously selected by a group of twenty manufacturers representing all of the various trades affected were submitted to the Commission. These six and one other of those nominated were named by the Commission to serve as the employers' representatives, seven of the persons nominated by the employees were selected to represent the workers, and three disinterested persons were appointed by the Commission to represent the public, thus forming a board of seventeen members. The chairman was Judge Frederick Chamberlain of the Worcester County Probate Court, and the other members representing the public were Miss Alice H. Grady of the Massachusetts Savings Insurance League and Mr. Lawrence G. Brooks of Boston.

On October 4 the board completed its deliberations and made the following report and recommendations to the Commission: —

The Men's Furnishings Wage Board, so called, presents the following report as the result of its study and deliberations: —

¹ St. 1912, c. 706, par. 4.

The board met on June 7 and organized, with Judge Chamberlain as chairman. Thereafter the board held eight meetings, the last one taking place on October 4. At these meetings evidence was presented upon which the board without dissent drafted a tentative itemized budget for the minimum amount necessary to cover the cost of living and maintenance in health of a self-supporting woman employed in the branches of the industry under investigation, as follows:—

	Per Week.
Room and board,	\$6 00
Clothing,	1 75
Laundry,	30
Car fares,	60
Doctor and dentist,	20
Church,	10
Newspapers and magazines,	15
Vacation,	35
Insurance,	10
Savings,	25
Organization dues,	15
Incidentals and recreation,	50
<hr/>	
Total,	\$10 45

Having thus secured a basis for discussion, the board then proceeded to determine whether or not \$10.45 was a suitable minimum wage for the several branches of the industry concerned, taking into consideration the cost of living of the employees and the expenses and profits of the employers. The latter were requested to present evidence on both points, but more especially with reference to the probable effect on profits of the establishment of a minimum wage of \$10.45. The employers, however, failed to present evidence of any kind, three of their number resigning prior to the sixth meeting, and two more prior to the seventh meeting.

At the seventh and eighth meetings of the board, attended by the seven employees and the three members representing the public, definite figures were discussed for a suitable minimum wage to be applied to the several branches of the industry. After deliberation the board voted unanimously as follows:—

1. The minimum wage to be paid to any female of ordinary ability, of eighteen years of age or over, who has been employed in the manufacture of men's neckwear more than fifty-two weeks, shall be \$9 per week.

2. The minimum wage to be paid to any female of ordinary ability, irrespective of age, who has been employed in the manufacture of men's neckwear more than twenty-six weeks and not more than fifty-two weeks, shall be \$8 per week.

3. The minimum wage to be paid to any female of ordinary ability,

irrespective of age, who has been employed in the manufacture of men's neckwear more than six weeks and not more than twenty-six weeks, shall be \$7 per week.

4. For the purpose of computing weeks of experience a week's work shall consist of not less than thirty-six hours.

5. The rates are for full-time work, by which is meant the full number of hours per week required of employees and permitted by the laws of the Commonwealth.

6. Where workers are paid by the piece, piece rates shall be such as to yield the minima hereinbefore set forth for a week of full-time work.

7. These rates shall be put in operation on or about Feb. 1, 1918.

There being no evidence before the board which would justify it in making different rates for the different branches of the industry, it then voted by successive votes, all unanimous, that the foregoing rates apply to all the other branches of the industry under investigation by the board.

At the outset of the hearings the point was raised by the employers that the board has been improperly constituted, in that the industry which it was authorized to investigate was in reality more than one "occupation." This point was referred to the Commission, which ruled that those branches of the clothing and furnishings industry under investigation constituted one occupation within the meaning of the law.

The employers at the sixth meeting raised the further point that the alleged resignation of three of their number made further action of the board illegal. This point also was referred to the Commission, which ruled that a quorum of a wage board amounting to not less than a majority of its total membership was competent to do business.

In view of the concurrence in this report of all the members representing the public, the Commission voted to approve provisionally the recommendations of the board, and after due notice to employers paying less than the proposed minimum wage gave a public hearing relative to the final approval of these recommendations. At this and at a subsequent conference held with employers no evidence was submitted which showed that the financial condition of any of the different branches of the industry was such as would prevent the payment of the minimum wage rates recommended. The Commission therefore gave final approval to the recommendations of the board and voted the following decree to become effective Feb. 1, 1918: —

1. No experienced female employee of ordinary ability shall be employed in the manufacture of men's or boys' shirts, overalls or other workingmen's garments, men's neckwear or other furnishings, or men's, women's or children's garters or suspenders in the Commonwealth of Massachusetts at a rate of wages less than \$9 a week.

2. No female employee of ordinary ability shall be deemed inexperienced who has been employed in the manufacture of men's or boys' shirts, overalls or other workingmen's garments, men's neckwear or other furnishings, or men's, women's or children's garters or suspenders for more than fifty-two weeks of not less than thirty-six hours each.

3. The wages of learners and apprentices may be less than the minimum prescribed for experienced employees, provided:—

(a) That no female employee of ordinary ability who has been employed in the industry for more than twenty-six weeks of not less than thirty-six hours each shall be employed at a rate of wages less than \$8 a week.

(b) That no female employee of ordinary ability who has been employed in the industry for more than six weeks of not less than thirty-six hours each shall be employed at a rate of wages less than \$7 a week.

4. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage, provided that the conditions of section 9, chapter 706, Acts of 1912, are complied with.

5. These recommendations shall take effect on Feb. 1, 1918, on which date all female employees of ordinary ability who have been employed in the industry for at least fifty-two weeks shall be deemed to have served their apprenticeship, and all others shall be deemed to have begun their apprenticeship, and to be entitled to such rates as are specified above.

The Women's Muslin Underwear, etc., Wage Board.

The recommendations of the Women's Clothing Wage Board, a summary of which was given in the Commission's last annual report, were concerned only with the determination of minimum wages for women and girls employed in the manufacture of women's outer garments (coats, suits, skirts, waists and dresses). After this board had been established, the Commission began an investigation of the remaining branches of the women's and children's garment trades, which included muslin underwear, aprons, kimonos, neckwear, children's dresses and rompers. As soon as the tabulation of the information secured in this investigation had been completed, the Commission held a hearing for employers for

the purpose of presenting to them the facts brought out by the inquiry and of giving them an opportunity to show cause, if any, why a wage board or boards should not be organized for these trades. As the employers who attended this hearing showed themselves ready to co-operate with the Commission in the establishment of minimum wage standards, a wage board of fifteen members, under the chairmanship of Mr. Harrison Lyman of Boston, was organized to recommend minimum wages for the women employed in these trades. The other members chosen to represent the public were Mr. Willis Rowell of Worcester and Mrs. Walter B. Cannon of Cambridge. The board held its first meeting on October 24 and is still in session.

INVESTIGATIONS CONDUCTED BY THE COMMISSION IN 1917.

Summary of Results of Investigation into the Wages of Women employed in Restaurants and Hotels.

During the summer and early winter of 1916 agents of the Commission visited 124 restaurants and 140 hotels located in 58 cities and towns throughout the State, including 4 restaurants and 37 hotels which were open only during the summer months. Wage records available for tabulation were secured for a total of 6,496 women, 2,981 of whom were employed in restaurants, 803 in summer hotels and 2,712 in hotels open throughout the year. Records for 65 restaurants and 51 hotels which were open throughout the year covered the actual wages received by all women employed therein during the year ending July 31, 1916. Because of the absence of adequate pay-roll records, information received from all the seasonal hotels and restaurants and a number of those open throughout the year covered only the rates of payment and actual wages paid to all the women therein employed during the week preceding the date of the investigation. Schedules requesting information regarding age, length of experience and living conditions were also filled out by a large number of the women workers themselves. For the purpose of securing additional information regarding the personal needs of workers, the adequacy of their earnings to

cover these needs and other matters pertinent to the wage situation, data regarding which could not be obtained from the pay-roll records or the schedules filled out by the women at their places of employment, agents of the Commission visited in their homes over 200 of the restaurant workers for whom wage data had been obtained.

The results of the investigation into the wages of restaurant workers showed that of those for whom the Commission secured a full year's pay-roll record 54.0 per cent. earned an average weekly wage of less than \$6 and 42.0 per cent. earned an annual wage of less than \$100 during the period of employment in the establishments investigated. Additional compensation in the form of one, two or three meals per working day, varying usually according to the number of hours of employment, were furnished free of charge to at least 88.8 per cent., and the privilege of purchasing meals at reduced rates was given to almost all of the remaining number for whom information was obtained. The largest single group (44.4 per cent.) of the restaurant employees were furnished three meals per working day in addition to a money wage. Of the 1,251 women who formed this group, practically all of whom were full-time workers, 49.2 per cent. received an average money wage of less than \$6 a week. Three-fourths (76.3 per cent.) of the number for whom information was obtained worked forty-two hours or more a week, or long enough to prevent the possibility of augmenting their earnings by any other paid employment. An unusually large proportion of restaurant workers as compared with women employed in other occupations (31.3 per cent.) roomed and boarded away from their families or other relatives, and nearly nine-tenths (88.1 per cent.) reported that they were dependent upon their own earnings for the necessities of life.

A summary of the information secured by the Commission relative to the money wage and other compensation received by restaurant workers is presented in the following table:—

Average Weekly Earnings of Women employed in Restaurants.

NUMBER OF MEALS RECEIVED PER DAY IN ADDI- TION TO WAGES.		NUMBER AND PER CENT. OF WORKERS EARNING —																TOTAL.		
		UNDER \$3.		UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.		\$9 AND OVER.				
		Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.			
Three meals,	.	.	88	.6	36	2.9	188	15.0	615	49.2	1,004	80.3	1,139	91.0	1,168	93.4	83	6.6	1,251	100
Two meals,	.	.	111	1.6	51	7.4	146	21.1	316	45.7	454	65.7	527	76.3	562	81.3	129	18.7	691	100
One meal,	.	.	93	19.8	267	56.8	366	77.9	421	89.6	445	94.7	459	97.7	466	99.1	4	.9	470	100
No meals,	.	.	11	3.9	48	16.8	61	21.4	74	26.0	82	28.8	87	30.5	162	35.8	183	64.2	285	100
Number of meals variable or not specified,	.	.	17	14.3	26	21.8	45	37.8	94	79.0	111	93.3	114	95.8	116	97.5	3	2.5	119	100
Total,	.	.	140	5.0	428	15.2	806	28.6	1,520	54.0	2,096	74.4	2,326	82.6	2,414	85.7	402	14.3	2,816	100

The level of wages paid to hotel employees was found to be considerably lower than that paid to restaurant workers, 64.4 per cent. of the women employed in hotels open throughout the year, and 82.2 per cent. of those employed in seasonal hotels, as compared with only 15.9 per cent. of the restaurant employees, being paid at the rate of less than \$5 a week. This difference in wages is, however, practically equalized by the fact that almost all of the hotel workers received three meals a day, or 21 meals a week, in addition to a money wage. Moreover, 60.8 per cent. of those in all-year hotels and 96.9 of those in summer hotels were furnished with lodging in addition to their board. The following table summarizes the facts relative to the wages paid in hotels as found by the Commission's investigation: —

Rates of Payment for Women employed in Hotels.

NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —																	
TYPE OF ESTABLISHMENT AND COMPENSATION RECEIVED IN ADDITION TO WAGES.	UNDER \$3.		UNDER \$4.		UNDER \$5.		UNDER \$6.		UNDER \$7.		UNDER \$8.		UNDER \$9.		\$9 AND OVER.		TOTAL.
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
<i>Hotels open all the Year Round.</i>																	
Lodging provided: —																	
Three meals,	—	—	422	29.0	1,048	72.1	1,265	87.1	1,315	90.5	1,338	92.1	1,365	93.9	88	6.1	1,453
No meals,	—	—	—	—	—	—	2	18.2	2	18.2	2	18.2	11	100.0	—	—	11
Number of meals variable or not specified,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	100.0	1
No lodging provided: —																	
Three meals,	13	1.6	44	5.3	485	58.9	592	71.8	704	85.4	730	88.6	751	91.1	73	8.9	824
Two meals,	—	—	—	—	19	100.0	19	100.0	19	100.0	19	100.0	19	100.0	—	—	19
One meal,	—	—	—	—	—	—	—	—	1	33.3	3	100.0	3	100.0	—	—	3
No meals,	—	—	—	—	—	—	22	45.8	23	47.9	28	58.3	39	81.3	9	18.7	48
Number of meals variable or not specified,	—	—	—	—	—	—	16	30.8	38	73.1	42	80.8	47	90.4	5	9.6	52
Total,	13	.5	466	19.3	1,552	64.4	1,916	79.5	2,102	87.2	2,162	89.7	2,235	92.7	176	7.3	2,411
<i>Summer Hotels.</i>																	
Lodging provided: —																	
Three meals,	2	.3	531	68.3	643	82.6	702	90.2	720	92.5	737	94.7	745	95.8	33	4.2	778
No lodging provided: —																	
Three meals,	—	—	13	52.0	17	68.0	24	96.0	25	100.0	25	100.0	25	100.0	—	—	25
Total,	2	.2	544	67.7	660	82.2	726	90.4	745	92.8	762	94.9	770	95.9	33	4.1	803
Total of all workers,	15	.5	1,010	31.4	2,212	68.8	2,642	82.2	2,847	88.6	2,924	91.0	3,005	93.5	209	6.5	3,214

Summary of Results of Investigation into the Wages of Women employed in the Manufacture and Trimming of Millinery.

This investigation was begun on Dec. 28, 1916, and completed on March 19, 1917, and the tabulation of the wage and other information obtained occupied the statistical force of the Commission during the spring and early summer months of 1917.

Owing to the lack of existing information relative to the extent and conditions of employment and the prevailing rates of wages paid to women in the different branches of the millinery trades, and to the difficulty of defining the nature and limitations of these trades, the Commission decided to include in its investigation examples of all the kinds of establishments which it might find to be concerned in the making and trimming of women and girls' hats and bonnets and other millinery supplies. The results of the Commission's inquiry showed that the production of millinery goods in this State was conducted in the four following principal types of establishments, each of which differed from the others in a more or less marked degree in its form of organization and the compensation and conditions of labor offered to its workers:—

1. *Hat factories*, in which straw, felt and velvet hats are made by machine processes under factory conditions;

2. *Flower and feather shops*, in which artificial flowers, feathers and other millinery ornaments are manufactured, chiefly by hand processes;

3. *Wholesale millinery shops*, in which hats of straw, silk, velvet or other materials are made up on wire or buckram frames, and "ready-to-wear" hats are trimmed for sale to retail dealers;

4. *Retail millinery shops, including millinery workrooms in department stores*, in which hats and bonnets are made up and trimmed as in the wholesale shops, but for sale direct to the individual customer.

Agents of the Commission visited in all 190 establishments engaged in one or another of these branches of the millinery trade. Pay-roll information for a fifty-two-week

period was secured from 8 hat factories, 2 establishments in which artificial flowers and feather supplies were manufactured, 10 shops which made up and trimmed millinery for the wholesale trade and manufactured hat frames, 22 retail millinery parlors and 6 millinery workrooms in department stores.

As will be seen from the following table, the results of the investigation showed a wide divergence in the wages which prevailed in the different trades. Practically all of the experienced workers in the hat factories were found to have an earning capacity well above the subsistence level. Of the total number of women employed, 63.3 per cent. earned an average weekly wage of \$9 or over, and 13.3 per cent. an average weekly wage of \$15 or over. On the other hand, the seasons in this trade are unusually short; only one-third (33.2 per cent.) of the workers had employment for as much as six months of the year, and three-fourths (76.1 per cent.) earned under \$350 for their entire year's work in the industry. Women employed in the manufacture of artificial flowers and feathers and ornaments were found to be the most poorly paid group, almost one-half (47.3 per cent.) of them receiving an average weekly wage of under \$5, and an equal proportion (49.5 per cent.) receiving less than \$100 as their total annual earnings. As had been anticipated because of the similarity of the occupation in the wholesale and retail shops, the level of wages in these two branches of the trade were almost identical, except that a larger proportion of both high and low paid workers were found in the retail shops. This was primarily due to the employment of a larger proportion of skilled trimmers and of apprentices in the latter group of establishments. The most serious evil in the wage situation in the retail millinery trade was found to be the low payment or non-payment of apprentices. Forty-three per cent. of these who were reported as receiving payment for their services earned an average weekly wage of less than \$3, and in a number of establishments apprentices were paid no wages at all, at best receiving only their car fares, and in some cases a small additional sum to cover the cost of lunches.

Average Weekly Earnings of Women employed in the Making and Trimming of Millinery.

TYPE OF ESTABLISHMENT.	NUMBER AND PER CENT. OF WORKERS EARNING —													
	Under \$3.	Under \$4.	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	Under \$13.	Under \$14.	Under \$15.	\$15 and over.
HAT FACTORIES: —														
Number,	4	20	50	111	191	271	344	431	527	606	682	756	813	125
Per cent., . . . . .	.5	2.1	5.3	11.8	20.4	28.9	36.7	45.9	56.2	64.6	72.7	80.6	86.7	13.3
FLOWER AND FEATHER FACTORIES: —														
Number,	16	48	86	113	141	153	162	173	177	181	181	182	182	—
Per cent.,	8.8	26.4	47.3	62.1	77.5	84.1	89.0	95.1	97.3	99.5	99.5	100	100	—
WHOLESALE MILLINERY SHOPS: —														
Number,	4	19	40	92	135	184	240	283	307	332	354	372	380	13
Per cent.,	1.0	4.8	10.2	23.4	34.4	46.8	61.1	72.0	78.1	84.5	90.1	91.6	96.7	3.3
RETAIL MILLINERY SHOPS: —														
Number,	24	41	71	87	107	137	196	238	274	295	303	309	314	37
Per cent.,	6.8	11.7	20.2	24.8	30.5	39.0	55.8	67.8	78.1	84.0	86.3	88.0	89.5	10.5

Summary of Results of Investigation into the Wages of Women employed as Cleaners in Office and Other Buildings.

During the months of April and May, 1917, agents of the Commission obtained information for a total number of 201 office and bank buildings, colleges, apartment houses and other buildings in which cleaners were employed, for the purpose of studying the extent and conditions of the employment of women in this occupation. It was found that in 91 of the buildings, including a large majority of those located outside of Boston, no women at all were employed. Pay-roll records covering a fifty-two week period were obtained from 64 establishments for a total number of 1,249 women, and schedules filled out by the individual workers, giving information relative to their personal circumstances, were obtained from 678 of these women.

The results of the investigation showed that 89.1 per cent. of the women earned an average wage of less than \$8 a week, and 30.3 per cent. earned an average wage of less than \$6 a week. Although over half (54.8 per cent.) earned less than \$200 during their year's employment in the building investigated, only 11.3 per cent. of the total number for whom such information was obtained and approximately the same number (11.0 per cent.) of those whose annual earnings as office cleaners totaled less than \$200 added to this income by the proceeds of other gainful employment. The hours of labor were found to be relatively short in this occupation, the majority of workers being employed for less than forty hours a week. On the other hand, approximately nine-tenths of the women who clean office buildings are required to do their work between the hours of 9.30 at night and 9.30 in the morning. Although there is practically no seasonal fluctuation in this employment, only 34.0 per cent. of the total number for whom wage data were obtained had employment for eleven months of the year.

Average Weekly Earnings of Building Cleaners: by Occupations.

OCCUPATIONS.	NUMBER AND PER CENT. OF WORKERS EARNING —																	
	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		TOTAL.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Office building cleaners,	14	1.3	35	3.2	54	5.0	122	11.2	457	42.0	276	25.4	86	7.9	43	4.0	1,087	100
Dormitory cleaners,	1	.6	100	65.0	44	23.6	8	5.2	1	.6	—	—	—	—	1	—	154	100
Matrons,	—	—	—	—	1	12.5	—	—	—	—	—	—	4	50.0	3	37.5	8	100
Total,	15	1.2	135	10.8	99	7.9	130	10.4	458	36.7	276	22.1	90	7.2	46	3.7	1,249	100

PUBLIC HEARINGS FOR PROPRIETORS OF RESTAURANTS,
HOTELS, MILLINERY ESTABLISHMENTS AND OFFICE
BUILDINGS.

While the information secured in these investigations appeared to confirm the Commission's opinion that the wages paid to a considerable number of the women employed in each of the above occupations were inadequate to supply the necessary cost of living and to maintain the worker in health, before determining upon the establishment of wage boards for any of these occupations the Commission held a series of hearings for the purpose of enabling employers to furnish any additional evidence they might desire to present with regard to the wage situation and to show cause, if any, why wage boards should not be organized in their trades.

At the hearings held for proprietors of hotels and restaurants evidence was presented with the intent of showing that since the period covered by the Commission's investigation the minimum rates paid to women in the former class of establishments had increased sufficiently to render the work of a wage board unnecessary. The Commission therefore postponed the formation of a board or boards for restaurants and hotels, pending an investigation of the present wage situation.

Employers of women building cleaners also claimed that the wages of women in their employ had increased considerably during the past year and in addition questioned the propriety of establishing a living wage standard for an occupation in which the prevailing hours of labor are so far below the legal maximum. Additional information relative to wages, hours, conditions of labor and the personal circumstances of women employed in this occupation is now being secured by agents of the Commission.

No new information was presented at the hearing held for employers of women engaged in the manufacture and trimming of millinery regarding the wages as found by the Commission in the lower paid branches of the trade — namely, the retail and wholesale shops and flower and feather

factories — and the formation of boards to recommend minimum wage rates for women employed in one or more of these branches of the trades was taken under advisement by the Commission.

THE ENFORCEMENT OF MINIMUM WAGE DETERMINATIONS.

Brush Industry.

In November and December, 1917, the Commission made its third reinspection since the operation of the decree of Aug. 15, 1914, of the pay-roll records of women employed in brush factories. It was found that women were employed in 23 such establishments as compared with 17 reported at the time of the last inspection in June and July, 1915. The total number of women employed in the industry in the State was 871, an increase of 79.6 per cent. over the number reported in 1915, and an increase of 67.2 per cent. over the number employed in 1913, previous to the establishment of a minimum wage in the industry.

Five establishments, employing together 14 women, were found to be failing to comply with the recommendations of the Commission, and 10 women in these establishments, forming about 1 per cent. of the total number in the industry, were receiving less than the recommended minimum wage rates.

As shown by the following tables, not only has there been a marked increase in the number of women employed in the industry since 1915, but also the rates of payment and actual earnings are now above the minimum standards set by the Commission in the decree of Aug. 15, 1914. The number of women receiving an average of \$9 or more increased from 19.4 per cent. in 1915 to 45.8 per cent. in 1917. The average per capita wage, however, increased only 13.2 per cent.

Rates of Payment for Women employed in Brush Factories, 1913, 1915 and 1917.

YEAR.	NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —														TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		Num-ber.	Per Cent.
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.				
1913,	1	.3	45	11.5	134	34.1	115	29.1	57	14.5	19	4.9	22	5.6	393	100
1915,	—	—	—	—	29	10.5	18	6.6	10	3.6	187	68.0	31	11.3	275	100
1917,	1	.2	—	—	—	—	6	1.0	74	12.6	137	23.3	371	63.0	589	100

NOTE. — Of the total 521 persons whose records were studied weekly rates were not available for 210 (1915). Of the total 871 persons whose records were studied weekly rates were not available for 282 (1917).

Average Weekly Earnings of Women employed in Brush Factories, 1913, 1915 and 1917.

YEAR.	NUMBER AND PER CENT. OF WORKERS EARNING —														TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
1913,	63	12.1	123	23.6	134	25.7	73	14.0	46	8.8	29	5.6	53	10.2	521	100
1915,	16	3.3	31	6.4	49	10.1	93	19.2	143	29.5	59	12.1	94	19.4	485	100
1917,	46	5.3	16	1.8	35	4.0	74	8.5	140	16.1	169	18.5	399	45.8	871	100

Laundries.

As noted in the Commission's last two annual reports, the enforcement of the laundry decree has been delayed by the refusal of employers to permit the agents of the Commission to examine their pay rolls pending a final court decision regarding the constitutionality of the Massachusetts minimum wage law. The arguments in this case were at length heard by the Supreme Court of the Commonwealth on Dec. 12, 1917, the Commission being represented by Messrs. Arthur D. Hill, John G. Palfrey and Howard W. Brown, designated as special counsel by the Attorney-General of the Commonwealth. It is anticipated that a decision will be reached by the court during the coming year.

Retail Stores.

A second reinspection of the pay rolls of retail stores was also commenced by the Commission in November of this year. This inquiry has not as yet been completed, but information has already been obtained for 55 establishments, including almost all of the large department stores in the State. In each of these establishments the pay-roll records have been inspected and the name, occupation, age, length of experience and weekly payment of each female employee who received less than the weekly minimum wage established for experienced adult workers (\$8.50) have been recorded. In addition, a transcript of a complete pay-roll record for one week has been taken from a typical department store in each of the larger cities for the purpose of ascertaining any changes in the general level of wages paid to women in these establishments since the time of the last inspection in 1916.

According to the information thus far obtained there has been no tendency on the part of employers to cease to follow the recommendations of the Commission, generally accepted by the proprietors of retail stores throughout the State in January, 1916.¹ No general increase in wages

¹ Massachusetts Minimum Wage Commission, Bulletin No. 12, Preliminary Report on the Effect of the Minimum Wage in Massachusetts Retail Stores.

above the established minimum, however, such as was found in the brush industry, has occurred in retail stores, even in cities where there is known to have been a marked increase in wages in other industries. A computation based upon the total number of women employed and the total amount paid in wages to these women by a representative Boston department store shows that the average per capita wage in that establishment has increased only 3.9 per cent. in the period between these dates.

Women's Clothing Industry.

On Feb. 1, 1917, a decree went into effect establishing a minimum standard of wages for women and girls employed in the manufacture of women's cloaks, suits, skirts, dresses and waists.¹ Notice of the provisions of this decree was given to employers through the newspapers and by personal letters, and the proprietors of a number of concerns immediately informed the Commission by letter of their intention to follow its recommendations. Shortly after the decree went into effect the Commission commenced an inspection of the pay rolls of all concerns in the State known to be engaged in the manufacture of the articles of women's clothing specified in the decree, both for the wholesale and the custom trade. A transcript of the pay-roll record for the week of approximately the greatest employment during the spring busy season was secured from 400 establishments located in 13 cities and towns, including 134 clothing factories, 222 dressmaking establishments and 44 women's custom tailoring shops. The results of this investigation showed that the great majority of the establishments investigated in which women were found to be employed were paying their workers in accordance with the recommendations of the Commission. Complete compliance was found in almost all of the clothing factories and custom tailoring shops, but in only about half of the custom dressmaking establishments. The following table, presenting information

¹ Massachusetts Minimum Wage Commission, Statement and Decree concerning the Wages of Women in Women's Clothing Factories in Massachusetts.

for 27 clothing factories for which comparative data were available, shows that since the time of the Commission's first investigation in 1915, the proportion of women in this industry receiving \$9 or over has increased from 42.5 per cent. to 73.2 per cent. in Boston, and from 10.9 per cent. to 57.0 per cent. in out of town concerns.

A second inspection of the pay rolls of this industry, which was commenced in November, 1917, has not yet been completed.

Rates of Payment for Week Workers in Twenty-seven Women's Clothing Factories, 1915 and 1917.

LOCALITY AND YEAR.	NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —																TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND UNDER \$10.		\$10 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.		
Establishments in Boston: —																		
1915,	1	.3	6	2.1	22	7.5	35	12.0	55	18.8	49	16.8	54	18.5	70	24.0	292	100
1917,	—	—	—	—	1	.3	13	3.8	29	8.5	48	14.1	72	21.2	177	52.1	340	100
Establishments outside of Bos- ton: —																		
1915,	17	12.3	29	21.0	30	21.8	24	17.4	13	9.4	10	7.3	9	6.5	6	4.3	138	100
1917,	—	—	3	3.5	5	5.8	6	7.0	12	13.9	11	12.8	22	25.6	27	31.4	86	100

THE OUTLOOK FOR 1918.

The Commission enters upon the fifth year of its activity with the prospect of an unusually heavy burden of duties to perform. The most immediate and obvious are those which complete work commenced in former years, such as the establishment of wage boards for all occupations in which the results of the investigations completed in 1917 show that a substantial number of women earned less than a living wage; the continuation of the work of the boards already in session; the completion of the inspection of pay rolls in retail stores and women's clothing establishments and of the comprehensive investigation into the wages of women employed in the manufacturing and finishing of cotton textile goods, begun last June; and the enforcement of the new wage rulings for the men's clothing and furnishing trades effective Jan. 1 and Feb. 1, 1918, respectively.

In addition and in some instances incidental to the continuation of these various lines of work to which the Commission is already pledged, a number of new problems directly relating to the wage situation have arisen as a result of war conditions. The general increase in the cost of food, clothing and other commodities since 1914, and the extent to which the wage level in different industries and occupations has kept up with the rise in prices, are matters to which the Commission has already been obliged to devote much study, both in connection with the work of the wage boards which have been organized during the past year, and with the question of the establishment of new wage boards now under consideration. In this country as in the countries of Europe the war has caused a widening disparity between the price of essential commodities and the purchasing power of the wages paid in a large number of the traditional woman-employing occupations. The Commission has estimated that the cost of living of a wage-earning woman in Massachusetts, based upon retail prices weighted according to the proportion which each item of expenditure forms of the total weekly budget, increased at

least 35 per cent. in the period between October, 1915, and October, 1917.¹ On the other hand, inquiry has shown that except in a relatively small number of industries there has been no general increase in wages at all comparable with this rise in living costs. A second result of the war, one which may in time require the entrance of the Commission into new fields of activity, is the employment of women in occupations hitherto filled by men. It may therefore become the duty of this State to follow the war-time example of Europe and Australia, not only in increasing the minimum wage rates already established, but also in extending the scope of its wage regulations to trades and occupations which have never before come under the operation of the minimum wage law.

RECOMMENDED LEGISLATION.

The experience of the Commission in enforcing its determinations, particularly those relative to the wages of women employed in the retail stores and in the manufacture of women's clothing, has shown the necessity of legislation enabling the Commission to issue special licenses to learners and apprentices and also to women who because of age are unable to do the work of an experienced employee of ordinary ability.

The Commission renews the recommendations, contained in its last two annual reports, for legislation requiring employers to keep records of hours worked by women and minors, for legislation enabling the Commission to fill

¹ The following method was used in arriving at this estimate: a comparison was made of the index numbers of retail prices of food published by the United States Bureau of Labor Statistics for October, 1915, and October, 1917, which showed an increase of 53 per cent. The cost of an itemized annual clothing budget prepared by the members of the Retail Store Wage Board, which held its sessions in the year 1915, was brought up to date by obtaining at department stores the 1917 prices for each of the articles specified. This showed that there has been an increase of about 35 per cent. in the total clothing budget. The increase in the price of fuel and light, and in the various incidental expenses, — such as laundry supplies, stationery, expenditures for recreation and vacation, — was ascertained from the most recently published statistics, or through special inquiry by agents of the Commission in the retail market. The proportion which each of the items of expenditure formed of the total budget of the wage-earning woman was then fixed by securing an average of the budgets approved by all the wage boards which have up to the present date made recommendations to the Commission, and the increase in the total cost of living was estimated by weighting the increase in the cost of the various items by the proportion which each item formed of this representative budget.

vacancies on wage boards, and for legislation to insure proper publicity for its orders and recommendations. The experience of the last year has served only to emphasize the importance of the considerations upon which these recommendations were originally based.

The Commission also renews a previous recommendation that 500 additional copies be printed of its annual reports. The demand for these reports is large and is constantly growing, and the interests of the Commonwealth require that it be fully supplied.

APPROPRIATION.

The appropriation for the fiscal year ending Nov. 30, 1917, was \$18,000. The manner in which this money has been expended is shown in the financial statement appended to the secretary's report. Since the enactment of the minimum wage law in 1913, the machinery of its administration has of necessity grown steadily more complex, particularly with reference to the enforcement of the increasing number of decrees in operation each year. The annual appropriations granted for the performance of the Commission's statutory duties, on the other hand, not only have not been increased to keep up with this necessary growth of administrative needs, but have, in fact, been decreased since the initial appropriation granted the Commission for its first full year's work in 1914 (\$18,900). The need for a larger appropriation for the proper performance of the Commission's duties, which has been emphasized in each of the Commission's previous reports, is especially urgent at the present time, when the cost of maintaining an efficient force and the prices of office supplies are unusually high.

For the year 1918 the Commission therefore asks for an appropriation of \$29,688, which will enable it to make adequate provision for the enforcement of those decrees already effective, and such others as may go into operation in the coming year; to support the work of the wage boards now in session, and new boards likely to be established within the next few months; to complete the comprehensive study of

the wages of women in the cotton textile industry commenced in June, 1917; to investigate the wages paid in one or more new occupations; and to meet proportionate necessary increases in the running expenses of the Commission.

Respectfully submitted,

EDWIN N. BARTLETT, *Chairman.*

MABEL GILLESPIE.

ARTHUR N. HOLCOMBE.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following tabular statement showing the number of establishments inspected and the number of workers for whom wage records were secured in the investigations conducted by the Commission during 1917, together with a summary of the expenditure of the appropriation granted by the General Court for that year.

INVESTIGATIONS MADE BY THE MINIMUM WAGE COMMISSION IN 1917.

Investigations made under Section 3 of the Minimum Wage Law.

INDUSTRY.	NUMBER OF ESTABLISHMENTS INVESTIGATED.			NUMBER OF WOMEN FOR WHOM WAGE RECORDS WERE OBTAINED.		
	Wage Records available.	Wage Records Lacking or Inadequate.	Total.	Records Tabulated.	Records excluded from Tabulation.	Total.
Millinery trades: —						
Hats (factory made), . . .	8	3	11	938	145	1,083
Feathers and flowers, . . .	2	1	3	182	83	265
Wholesale millinery, . . .	10	2	12	393	181	574
Retail millinery, . . .	28	136	164	351	131	482
Office and other building cleaning,	64	137	201	1,249	514	1,763
Cotton goods, . . .	78	2	80	— ¹	— ¹	52,600 ²
Total, . . .	190	281	471	—¹	—¹	56,767²

¹ Tabulation not completed.

² Approximate figure, including 8,169 for whom one week's record only has been obtained.

Investigations made under Section 14 of the Minimum Wage Law.

INDUSTRY.	Number of Establish- ments investigated.	Number of Women for whom Wage Records were obtained.
Brush,	23	871
Retail stores,	55	- ¹
Women's clothing,	400 ²	3,874
Total,	478	-¹

¹ Wage records obtained in some stores were for all women employed, in others only for those receiving under \$8.50, therefore a total is not given.

² The pay rolls of 134 of these establishments were inspected twice in 1917.

FINANCIAL STATEMENT.

Appropriations: —

Salaries and expenses of commissioners, . . .	\$2,300 00	
Salary of the secretary,	2,000 00	
Clerical assistance,	3,500 00	
Salaries of special agents,	4,000 00	
Additional appropriation for salaries of in- vestigators, in accordance with chapter 323, General Acts of 1917,	83 30	
Compensation and expenses of wage boards, . . .	2,000 00	
Office rent,	1,600 00	
Traveling and contingent expenses,	2,600 00	
Additional appropriation for traveling and contingent expenses, transferred from fund of extraordinary expenses,	128 83	
		<hr/> \$18,212 13

Expenditures: —

Salaries and expenses of commissioners, . . .	\$1,562 73
Salary of the secretary,	2,000 00
Clerical assistance,	3,499 37
Salaries of special agents,	4,081 72
Compensation and expenses of wage boards, . . .	1,462 13
Office rent,	1,599 96

Amount carried forward, \$14,205 91

Amount brought forward, \$14,205 91

Traveling and contingent expenses: —

Light,	\$29 35	
Traveling expenses,	660 73	
Telephone and telegraph, . .	246 60	
Express and messenger, . . .	30 74	
Stationery and office supplies,	166 85	
Printing,	1,280 06	
Postage,	108 52	
Books, periodicals, clippings,	92 97	
Advertising,	20 88	
National Child Welfare Ex-		
hibit Association,	56 12	
Miscellaneous,	36 01	
	<hr/>	2,728 83
		<hr/>
		\$16,934 74

Unexpended balance reverting
to State treasury: —

Salaries and expenses of com-		
missioners,	\$737 27	
Clerical assistance,	63	
Salaries of special agents, . .	1 58	
Compensation and expenses of		
wage boards,	537 87	
Office rent,	04	
	<hr/>	1,277 39
		<hr/>
		\$18,212 13

Yours respectfully,

ELLEN NATHALIE MATTHEWS,

Secretary.

APPENDICES.

APPENDIX No. 1.

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS UP TO JAN. 1, 1918.

KINDS OF WORK COVERED.	WORKERS AFFECTED.		Wage Rates.	Remarks.	Decree Effective.
	Class.	Age.			
Brush industry.	Experienced time workers.	Any.	\$0.155 an hour.	Piece rates also to yield at least \$0.155 an hour.	Aug. 15, 1914.
	Learners and apprentices—time workers.		65 per cent. of above (about \$0.10).	Time of apprenticeship not more than 1 year.	
	Experienced females of ordinary ability.	Any.	\$8 weekly.	To be deemed "experienced" after 1 year's apprenticeship if absences during that period have not been of unreasonable duration. For females of less than ordinary ability wage fixed by special license.	Sept. 1, 1915.
Laundry.	Learners and apprentices:		(1) \$0 weekly. (2) \$0.50 weekly. (3) \$7 weekly. (4) \$7.50 weekly.		
	(1) Under 3 months' experience.				
	(2) 3-6 months' experience.				
Retail stores.	(3) 6-9 months' experience.				
	(4) 9-12 months' experience.				
	Experienced females of ordinary ability.	19 or over.	\$8.50 weekly.	As above. Extra on part time workers to receive at least same scale of pay pro rata for time actually employed.	Jan. 1, 1916.
	Learners and apprentices.	(1) 18 or over. (2) 17. (3) Less than 17.	(1) \$7 weekly. (2) \$6 weekly. (3) \$5 weekly.		

Women's clothing factories (cloak, suit, skirt, dress and waist-shops).	Experienced females of ordinary ability.	1½ or over.	\$8.75 weekly.	To be deemed "experienced" after 1½ years' apprenticeship after reaching 18 if absences during that period have not been of unusual duration. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1917.
	Learners and apprentices.	(1) 18 or over. (2) Less than 18.	(1) \$7 weekly. (2) \$6 weekly.		
Men's clothing and raincoat factories.	Experienced females of ordinary ability.	18 or over.	\$9 weekly.	To be deemed "experienced" after 1 year's apprenticeship if absences during that period have not been of unreasonable duration. For females of less than ordinary ability wage fixed by special license.	Jan. 1, 1918.
	Learners and apprentices: (1) 3-12 months' experience.	Any.	\$7 weekly.		
Men's furnishings factories (manufacture of men's and boys' shirts, overalls, and other workmen's garments, men's neckwear and other furnishings, and men's, women's and children's garters and suspenders).	Experienced females of ordinary ability.	Any.	\$9 weekly.	To be deemed "experienced" after 52 weeks' apprenticeship. For the purpose of computing weeks of experience a week's work shall consist of not less than thirty-six hours. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1918.
	Learners and apprentices: (1) 26-52 weeks' experience. (2) 6-26 weeks' experience.		(1) \$8 weekly. (2) \$7 weekly.		

APPENDIX NO. 2.

A PROCLAMATION BY THE INDUSTRIAL WELFARE COMMISSION OF THE STATE OF WASHINGTON.

American standards must be maintained during the period our nation is engaged in this world war that efficient, physically strong and healthful, mentally alert, and contented workers may keep the industrial and commercial activities of our State at a high standard of service to the nation's cause in the hour of its supreme test. Such a standard can only be maintained under a condition where the workers receive a sufficient wage to guarantee proper nourishment, housing and clothing, and with a work day of such reasonable hours as to allow them necessary time for rest and recreation. The State's workers are patriotic and desire to do their part in supporting the nation's activities in the prosecution of the war. If the women and minors engaged in its industries receive a wage that will enable them to purchase bonds and subscribe their share for Red Cross work, etc., it will have a tremendous influence in making, not only for industrial contentment, but will be conducive to a higher standard of citizenship.

The minimum wage orders of this Commission, affecting the women and minors engaged in the various industrial and commercial employments in this State, were promulgated in 1914 and 1915, when the country was at peace and the cost of living was at least thirty-five per cent. lower than at this time. Such rates of pay do not constitute a living wage under present conditions. The Commission believes that these conditions are incident to the war and are, therefore, temporary, and it is reluctant to invoke the legal methods of establishing a higher scale, but appeals to the patriotic sense of duty and obligation resting upon the employers of the State to grant to their employees in these groups a proper increase of wages to cover this period of the greatly increased cost of living with which we are now burdened. This Commission expects a full

and prompt response to this appeal from all employers throughout the State. Unless employers do respond satisfactorily the Commission will be compelled to take such other action within its power as may be necessary to insure the desired result.

Having full confidence in the patriotism of all our people, that employees and employers alike will co-operate to the end of bringing about the highest industrial efficiency in the State, we do hereby issue this proclamation, and hereunto set our hands and seals this seventh day of January, 1918, Olympia, Washington.

INDUSTRIAL WELFARE COMMISSION
FOR THE STATE OF WASHINGTON.

MRS. JACKSON SILBAUGH, *Chairman.*

M. H. MARVIN.

MRS. W. H. UDALL.

C. H. YOUNGER.

Attest:

FRANCES K. HEADLEE,
Secretary.

SIXTH ANNUAL REPORT
OF THE
MINIMUM WAGE COMMISSION
OF
MASSACHUSETTS

FOR THE YEAR ENDING NOVEMBER 30, 1918



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CONTENTS.

	PAGE
MEMBERS OF THE COMMISSION,	5
 REPORT OF THE COMMISSION:—	
Changes in the Personnel of the Commission,	7
Supreme Court Decision upholding Constitutionality of Minimum Wage Law,	8
Summary of Activities of the Minimum Wage Commission for 1918, . .	10
Summary of Results of Investigations conducted by the Commission in 1918,	11
Wages of Women employed in Cotton Textile Factories,	11
Supplementary Investigation into the Wages of Women employed in Restaurants,	15
Supplementary Investigation into the Wages of Women employed in Wholesale Millinery Establishments,	18
Wages of Women employed in Canning and Preserving Establishments,	18
Wages of Women employed in Confectionery Factories,	22
Results of Wage Board Activities in 1918,	25
Muslin Underwear Wage Board,	25
Office and Other Building Cleaners' Wage Board,	25
Retail Millinery Wage Board,	26
Wholesale Millinery Wage Board,	27
Retail Store Wage Board,	27
Enforcement of the Commission's Decrees,	28
Women's Clothing Industry,	28
Men's Clothing and Men's Furnishings Industry,	29
Retail Stores,	32
Women's Muslin Underwear and Retail Millinery Industry, . .	32
Five Years of Minimum Wage in Massachusetts,	33
Outlook for 1919,	35
War-time Problems,	35
Revision of Rates,	36
Wage Increases in Other States,	37
Advance in Minimum Wage Legislation,	38
Reconstruction Problems,	39
Needs of the Commission,	39
Recommendations,	41
Legislation,	41
Appropriation,	41
 REPORT OF THE SECRETARY:—	
Investigations made by the Minimum Wage Commission in 1918, . .	43
Financial Statement,	44
 APPENDIX NO. 1:—	
Massachusetts Supreme Judicial Court Decision upholding the Constitutionality of the Massachusetts Minimum Wage Law (Holcombe v. Creamer, 231 Mass. 99),	49

	PAGE
APPENDIX No. 2:—	
Membership of Wage Boards in Session in 1918,	56
APPENDIX No. 3:—	
Itemized Cost of Living Budgets,	58
APPENDIX No. 4:—	
Minimum Wage Decrees established in Massachusetts up to Jan. 1, 1919,	59

TABLES.

TABLE I (a).—Showing Rates of Payment for Women employed in Cotton Textile Industry in Massachusetts (based on Pay-roll Records for 55 Establishments, January to June, 1917), . . .	13
TABLE I (b).—Showing Rates of Payment for Women employed in Cotton Textile Industry in Massachusetts (based on Pay-roll Records for 55 Establishments, January to June, 1915), . . .	14
TABLE II.—Showing Rates of Payment for Women employed in Massa- chusetts Restaurants (based on Pay-roll Records for June, 1918, and June, 1916),	17
TABLE III.—Showing Average Weekly Earnings of Women employed in the Canning and Preserving Industry of Massachusetts (based on Pay-roll Records for July, 1917, to June, 1918), . . .	20
TABLE IV.—Showing Average Weekly Earnings of Women employed in 7 Massachusetts Confectionery Factories by Occupations (based on Pay-roll Records, June to September, 1918), . . .	24
TABLE V.—Showing Rates of Payment for One Week for Women employed in 23 Men's Clothing and Raincoat Factories in Massachusetts, 1915 and 1918,	31

MEMBERS OF THE COMMISSION.

CHARLES F. DUTCH, *Chairman*, . . . Term expires Oct. 1, 1920.
MABEL GILLESPIE, Term expires Oct. 1, 1919.
ARTHUR C. COMINS, Term expires Oct. 1, 1921.

ETHEL M. JOHNSON, *Secretary*.

The Commonwealth of Massachusetts.

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Minimum Wage Commission of the Commonwealth of Massachusetts, as required by law, herewith respectfully submits its sixth annual report, which contains an account of its investigations and proceedings during the year ending Nov. 30, 1918.¹ The report embodies recommendations for such amendments to the minimum wage law and for such additional increases in appropriation as will enable the Commission to perform its duties effectively. Following the Commission's report is that of the secretary, summarizing the activities of the field and office force for this period, and giving a statement of the expenditures made by the department from the appropriation granted by the General Court for the fiscal year. Appended is a summary of the wage decrees entered by the Commission under the authority of the law up to Jan. 1, 1919, an outline of the cost of living budgets approved by the Commission's wage boards, and a list of the members of wage boards in session in 1918, together with part of the text of the decision of the Supreme Judicial Court of Massachusetts upholding the constitutionality of the minimum wage law.

CHANGES IN THE PERSONNEL OF THE COMMISSION.

Charles F. Dutch of Winchester was appointed in May, 1918, to succeed Commissioner Arthur N. Holcombe, whose second term had expired in October, 1917. Because of war service at Washington, Mr. Holcombe was obliged to decline

¹ As the previous report of the Commission was for the year ending Dec. 31, 1917, the present report covers only eleven months.

reappointment. He continued, however, to give a part of his time to the work of the Commission until the appointment and confirmation of his successor. The term of Chairman Edwin N. Bartlett expired Oct. 1, 1918, and as he declined reappointment, Governor McCall appointed Arthur C. Comins of Worcester to represent employers on the Commission, and designated Commissioner Dutch as chairman. In September the Commission lost the valued services of its executive secretary, Ellen Nathalie Matthews, who resigned because of appointment as assistant director of the Child Labor Division of the United States Children's Bureau. Miss Matthews had been connected with the Commission for four years, and had served as secretary since October, 1915. Ethel M. Johnson was appointed in her place.

SUPREME COURT DECISION UPHOLDING CONSTITUTIONALITY OF MINIMUM WAGE LAW.

The most significant event of the year, and the most important in the Commission's history, is the decision of the Supreme Judicial Court of Massachusetts upholding the minimum wage law. The constitutionality of the law establishing the Commission and defining its powers¹ was the issue in the case brought by the Commission against certain of the laundrymen. Some employers had refused to permit inspection of their books as required by law² to determine compliance with the decree established for the laundry occupation.³ The case was argued on Dec. 7, 1917, Arthur D. Hill, J. G. Palfrey and Howard W. Brown representing the Commission, and E. Mark Sullivan appearing for the laundrymen. Pending a decision, the Commission was prevented from using its power of publicity against violations of its decrees, and was further handicapped in its activities in various directions. The unsettled status of the law was made one of the reasons for deferring needed legislation and for opposing an appropriation adequate for proper performance of the Commission's duties. The work of two wage

¹ Acts of 1912, c. 706, as amended.

² *Ibid.*, § 11.

³ Statement and Decree concerning the Wages of Women in Laundries in Massachusetts, Sept. 15, 1915.

boards, the Candy Wage Board and the Paper Box Wage Board, was held up on the same question of constitutionality.

The decision given in an opinion by Chief Justice Rugg, Sept. 24, 1918,¹ is a vindication of the law in its essential provisions. The text of the opinion without the citations appears in Appendix No. 1 of this report. The opinion specifically denies that the publicity feature of the Massachusetts law is in the nature of a blacklist or a boycott. This was one of the contentions made by the respondents, and represents an important distinction from the Oregon case,² which had been decided before the Massachusetts case was heard. There the question involved was the constitutionality of a mandatory minimum wage law. The Massachusetts decision upholds, so far as the State courts are concerned, the legality of a minimum wage law which depends for its enforcement upon public opinion. While Massachusetts and Nebraska are at present the only States with a law of this kind, the decision, as a precedent, is far-reaching in its importance. Its immediate effect, however, is confined to the local situation. In view of the nature of the decision and the attitude of the United States Supreme Court, there is little likelihood of an appeal being made.

The Commission, thus freed from some of the restrictions that have hampered its activities in the past, faces greater responsibility. The provisions of the law requiring publication of the names of those failing to comply with the Commission's decrees must now be applied when necessary, and the work that has been interrupted pending the outcome of this test case must be completed.

In this connection the Commission has already undertaken an investigation of the present wages of women and girls employed in candy factories in Massachusetts, for the purpose of determining whether conditions make necessary the establishment of a wage board for the occupation. A second investigation of wage conditions in the paper box industry has been arranged. The inspection of laundries will be resumed, and reinspection undertaken in those retail stores

¹ *Holcombe et al. v. Creamer et als.*, 231 Mass. 99.

² *Stettler v. O'Hara*, 243 U. S. 629.

that failed to comply with the decree for their respective occupation, or refused to show their books at the time of previous inspections.

These requirements for extended activity on the part of the Commission make necessary an adequate appropriation and certain perfecting legislation in order to enable the Commission to carry on effectively its legal duties.

SUMMARY OF ACTIVITIES OF THE MINIMUM WAGE COMMISSION FOR 1918.

Publications. — Reports of the investigations made in 1917 into the wages of women employed as office and other building cleaners,¹ and into the wages of women employed in hotels and restaurants,² were published in 1918.

Investigations. — During the year the Commission investigated wage conditions of women in the following industries: —

Cotton textile, an extensive investigation, commenced in 1917 and completed in 1918.

Canning and preserving.

Confectionery, the second investigation of the industry by this Commission.

Wholesale millinery, supplementing the investigation made in the winter of 1917.

Restaurants, supplementing the investigation made in the summer and early winter of 1917.

Wage Boards. — Wage boards for the following occupations have been in session in 1918: muslin underwear, retail millinery, office and other building cleaners, and wholesale millinery. After public hearings on the recommendations of these boards, decrees approving their determinations were entered, as follows: —

For the muslin underwear occupation, to become effective Aug. 1, 1918.

For the retail millinery occupation, to become effective Aug. 1, 1918.

For the wholesale millinery occupation, to become effective Jan. 1, 1919.

¹ Massachusetts Minimum Wage Commission, Bulletin No. 16, Wages of Women employed as Office and Other Building Cleaners in Massachusetts, May, 1918.

² Massachusetts Minimum Wage Commission, Bulletin No. 17, Wages of Women in Hotels and Restaurants in Massachusetts, September, 1918.

Action on the determination of the Office Cleaners' Wage Board has been delayed pending the interpretation of a legal point.

As a result of the second inquiry into the wages of women employed in restaurants, the Commission sent a letter¹ to employers urging that those who were not paying a living wage should do so, and deferred the formation of a wage board pending a satisfactory response to this appeal.

Acting upon a petition from retail store employees asking for a revision of the minimum rates established Jan. 1, 1916, the Commission on November 29 held an informal conference with members of the Retail Store Wage Board. At this meeting a resolution² calling for an immediate advance in the wage rates fixed in the retail store decree was unanimously adopted.

Inspections.—To determine compliance with the Commission's wage decrees, inspections were made of the pay rolls of retail stores, retail millinery establishments, and factories engaged in the manufacture of women's clothing, men's clothing, men's furnishings, and muslin underwear.

SUMMARY OF RESULTS OF INVESTIGATIONS CONDUCTED BY THE COMMISSION IN 1918.

Wages of Women employed in Cotton Textile Factories.

The investigation of the wages of women employed in cotton textile factories in Massachusetts represents the most extensive wage survey undertaken by the Commission. The field work for this study was commenced in June, 1917, and completed in February, 1918. Agents of the Commission visited the principal textile centers of the State. In all, 80 factories were visited, from 72 of which pay-roll data were used. These 72 include 52 firms manufacturing yarn or cotton cloth; 11 making narrow fabrics, such as shoe lacings, elastic webbing, cords and braids; 4 firms handling cotton waste, as mattress filling, mops, wicking, twine, and cleaning waste; and 5 firms representing print and dye works or bleacheries. In each important textile center several of the

¹ See p. 15.

² See p. 28.

larger as well as some of the smaller firms were included, that the data secured might be as representative as possible. Pay-roll records for 64,529 female employees were secured, and 54,345 of these records were used for tabulation. In order to show changes in wage conditions over a two-year period, in 55 of the establishments a transcript was made of the pay-roll record for each female employee for the first six months of the year 1915, and for the corresponding period in 1917. Rate increases between the last week of June, 1915, and June, 1917, are shown in the following tables, which summarize the results for the different types of establishments included in the investigation. From this it appears that there has been an approximate increase of from \$3 to \$4 in weekly rates. An even more conspicuous advance would be shown if rates for 1918 could be presented.

TABLE I (a). — Showing Rates of Payment for Women employed in Cotton Textile Industry in Massachusetts.

[Based on pay-roll records, for 55 establishments, January to June, 1917.]

PRODUCT.	NUMBER AND PER CENT. OF WOMEN WITH WEEKLY RATES OF —													Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
COTTON GOODS: —														
Number,	6	16	83	244	349	1,115	1,349	1,007	1,274	1,345	639	465	410	8,302
Per cent., . . . . .	.1	.2	1.0	2.9	4.2	13.4	16.3	12.1	15.4	16.2	7.7	5.6	4.9	100
BLEACHED, DYED AND PRINTED GOODS: —														
Number,	—	—	—	26	38	248	201	120	40	23	8	1	22	727
Per cent.,	—	—	—	3.6	5.2	34.1	27.7	16.5	5.5	3.2	1.1	.1	3.0	100
COTTON SMALL WARES: —														
Number,	—	3	15	25	43	139	84	38	7	7	3	1	3	368
Per cent.,	—	.8	4.1	6.8	11.7	37.8	22.8	10.3	1.9	1.9	.8	.3	.8	100
COTTON WASTE: —														
Number,	—	1	7	22	124	24	9	5	1	—	1	—	—	194
Per cent.,	—	.5	3.6	11.4	63.9	12.4	4.6	2.6	.5	—	.5	—	—	100
Total: —														
Number,	6	20	105	317	554	1,526	1,643	1,170	1,322	1,375	651	467	435	9,591
Per cent., . . . . .	.1	.2	1.1	3.3	5.8	15.9	17.1	12.2	13.8	14.3	6.8	4.9	4.5	100

TABLE I (b). — *Showing Rates of Payment for Women employed in Cotton Textile Industry in Massachusetts.*
 [Based on pay-roll records, for 55 establishments, January to June, 1915.]

Product.	NUMBER AND PER CENT. OF WOMEN WITH WEEKLY RATES OF —													Total.
	Under \$4.	\$4 and under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
COTTON GOODS: —														
Number,	46	299	725	1,547	1,366	1,525	799	425	179	24	3	—	3	6,941
Per cent., . . . . .	.6	4.3	10.4	22.3	19.7	22.0	11.5	6.1	2.6	.3	.1	—	.1	100
BLEACHED, DYED AND PRINTED GOODS: —														
Number,	1	—	73	243	194	46	12	26	2	2	—	—	—	599
Per cent., . . . . .	.2	—	12.2	40.6	32.4	7.7	2.0	4.3	.3	.3	—	—	—	100
COTTON SMALL WARES: —														
Number,	1	19	30	86	45	54	22	10	2	—	1	—	—	270
Per cent., . . . . .	.4	7.0	11.1	31.9	16.7	20.0	8.1	3.7	.7	—	.4	—	—	100
COTTON WASTE: —														
Number,	—	21	129	3	9	1	—	—	—	—	—	—	—	163
Per cent.,	—	12.9	79.2	1.8	5.5	.6	—	—	—	—	—	—	—	100
Total: —														
Number,	48	339	957	1,879	1,614	1,626	833	461	183	26	4	—	3	7,973
Per cent., . . . . .	.6	4.2	12.0	23.6	20.2	20.4	10.4	5.8	2.3	.3	.1	—	.1	100

Supplementary Investigation into the Wages of Women employed in Restaurants.

An inquiry into the wages paid to women in hotels and restaurants in Massachusetts¹ was made by the Commission in 1916-17. Facts as to wage increases brought out subsequently in a public hearing caused the Commission to postpone the formation of a wage board for either of these occupations. Two supplementary investigations of wage conditions in restaurants were conducted by the Commission in 1918, — one in February, the other in July and August. These showed a considerable improvement in wage conditions since the first investigation, although in a number of instances wages were still below the cost of living.² The Commission accordingly sent a letter to restaurant proprietors explaining the facts and urging that all who were not paying a living wage should do so. A copy of the proclamation made by the Commission Aug. 28, 1918, is given below.

NOTICE TO PROPRIETORS OF RESTAURANTS IN MASSACHUSETTS.

During the latter part of the year 1916 the Massachusetts Minimum Wage Commission investigated the wages of women employees in restaurants in this State. It found that the wages paid to a substantial number of such employees were inadequate to supply the necessary cost of living and to maintain them in health. Subsequently at a public hearing it appeared that the wages and other forms of compensation, such as meals and lodging, paid to women in this occupation had increased considerably in value since the time covered by the Commission's inquiry. The Commission, therefore, postponed the formation of a wage board pending further inquiry concerning the current trend of wages.

Two supplementary inquiries, one in February and the other in July and August, 1918, indicate that there has been since the original investigation a general increase ranging from 15 to 50 per cent. in the money wage paid in restaurants. Since the greatest increase in the cost of living is for the item of food, and since the majority of restaurant workers receive from one to three meals a day in addition to a money wage, the restaurants of Massachusetts are at the present day paying to most of their female employees a wage sufficient to

¹ Massachusetts Minimum Wage Commission, Bulletin No. 17, Wages of Women in Hotels and Restaurants in Massachusetts, September, 1918.

² See Table II, on p. 17.

cover the minimum cost of living. There are, nevertheless, still a number who are receiving less than a living wage. Where such unsatisfactory wage conditions still prevail, the employers are not only handicapping their workers, but also are thereby operating in unfair competition with the large number of proprietors who have met war conditions by bringing their wage scale up to a living wage.

In the endeavor to obviate these inequalities without the necessity of establishing a wage board for this occupation, and in the hope that the employers will co-operate with it, the Commission hereby calls upon all proprietors of restaurants, lunch and tea rooms, cafeterias, and similar establishments in the Commonwealth, to grant to all female employees of ordinary ability now receiving an insufficient wage such increases as are necessary to cover the cost of living of a self-supporting woman at the present time.

Pending a satisfactory response to this appeal, the Commission will further postpone the formation of a wage board in this occupation.

TABLE II. — *Showing Rates of Payment for Women employed in Massachusetts Restaurants.*
 [Based on pay-roll records for June, 1913, and June, 1916.]

NUMBER OF MEALS RECEIVED.	UNDER \$3.		\$3 AND UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		TOTAL.	
	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.
1918.																		
3 meals,	—	—	—	—	—	—	10	5.7	29	16.7	37	21.3	38	21.8	60	34.5	174	100
2 meals,	—	—	12	8.3	9	6.3	2	1.4	8	5.5	17	11.8	9	6.3	87	60.4	144	100
1 meal,	1	2.2	10	21.7	5	10.9	8	17.4	—	—	6	13.0	1	2.2	15	32.6	46	100
No meals,	2	.6	3	.9	25	7.3	19	5.6	19	5.6	15	4.3	22	6.4	237	69.3	342	100
Miscellaneous meals,	—	—	—	—	—	—	—	—	1	6.7	2	13.3	3	20.0	9	60.0	15	100
Total,	3	.4	25	3.5	39	5.4	39	5.4	57	7.9	77	10.7	73	10.1	408	56.6	721	100
1916.																		
3 meals,	—	—	5	.4	32	2.5	202	15.9	429	33.9	432	34.1	56	4.4	112	8.8	1,268	100
2 meals,	—	—	12	1.7	30	4.2	122	17.1	194	27.2	133	18.6	70	9.8	152	21.3	714	100
1 meal,	19	4.0	188	40.0	100	21.3	89	18.9	30	6.4	21	4.5	14	3.0	9	1.9	470	100
No meals,	1	.3	37	13.3	10	3.6	15	5.4	13	4.7	1	.3	6	2.1	196	70.3	279	100
Miscellaneous meals,	—	—	2	9.5	—	—	4	19.1	8	38.1	3	14.3	—	—	4	19.0	21	100
Total,	21	.8	244	8.9	172	6.2	432	15.7	674	24.5	590	21.4	146	5.3	473	17.2	2,752	100

Supplementary Investigation into the Wages of Women employed in Wholesale Millinery Establishments.

An investigation into the wages of women employed in the manufacture and trimming of millinery was made by the Commission in the winter of 1916-17. This investigation included hat factories, flower and feather shops, wholesale millinery shops and retail millinery establishments, including millinery workrooms in department stores. An account of this work appears in the Commission's fifth annual report.

Public hearings for employers relative to the advisability of establishing wage boards for these occupations were held in the fall of 1917.

A supplementary investigation into the wages paid to women in wholesale millinery establishments was made by agents of the Commission in the summer of 1918. This showed little improvement in wage conditions since the original investigation was made. Accordingly, a wage board was established for the occupation, and subsequently a decree entered, to become operative Jan. 1, 1919. An account of the work of this wage board, together with a summary of the provisions of the decree, appears on pages 27 and 61 of this report.

Wages of Women employed in Canning and Preserving Establishments.

During the summer and fall of 1918 agents of the Commission made an investigation into the wages paid to women and girls employed in canning and preserving establishments in Massachusetts. The field work was started in July and completed in November, 1918. Wage records available for tabulation were secured from 11 fish-canning factories, and from 11 establishments engaged in canning pickles, preserves, sauces, and other products. These included firms making jellies, jams, marmalades, mayonnaise dressing, as well as a few engaged in canning fruits, vegetables, meat, mince meat and hash. In each case a transcript was made of the pay roll for the fifty-two weeks preceding the investigation, — July, 1917 to June, 1918. Wage data available for tabula-

tion were secured for 378 women in fish canneries, and for 282 in other canning establishments. Average weekly earnings for female employees in both types of establishments are shown in Table III., on pages 20 and 21. From this it appears that nearly nine-tenths were receiving less than \$9 a week, and over two-thirds were receiving less than \$8 a week. Results of the investigation show fairly long hours in the industry, for the majority of those for whom this information was available, average working hours of 38 to 50 a week. The seasonal problem is a serious one, well marked in both the fish and other kinds of canning establishments. In both types of factories rates for the majority of workers were below the standard of living: 59.3 per cent. of the women employed in fish-handling establishments, and 71.4 per cent. of those in the other establishments, were scheduled to receive less than \$9 a week. Only 51 had total annual earnings of as much as \$450, or the equivalent of \$9 a week throughout the year. In connection with these rates and earnings it should be remembered that the period covered was one of exceptionally high wages. The prominence given to "war wages," however, has caused many to overlook the fact that in some of the non-war industries, especially those employing unskilled labor, wage advances have been very slight, and have entirely failed to keep pace with the increase in the cost of living.

Wages of Women employed in Confectionery Factories.

Following the Supreme Court decision, the Commission voted to conduct an investigation of the wages of women and girls employed in candy factories in Massachusetts,¹ to determine whether conditions require the establishment of a wage board for the occupation. An earlier investigation was made in 1913-14,² and a wage board subsequently formed. Injunction proceedings instituted by confectionery manufacturers, however, prevented the Commission from issuing a decree at that time. The field work for the present investigation was started in October, 1918, and completed the following month. Agents of the Commission visited 7 of the 14 establishments included in the previous investigation. In each of these a transcript of the pay roll for the four months, June to September, 1918, was taken. In addition to this, in two of the factories a year's pay roll, from October, 1917, to September, 1918, was taken for purpose of comparison with the former study. Wage records were secured for 1,675 women and girls. Of these records 1,232 were used in tabulating average weekly earnings. Results of the investigation indicate that for those firms where time rates represent the prevailing method of payment, there has been, since 1913, an approximate advance of \$3 in weekly rates.

There has also been a material reduction in hours since the former study. Average working hours for the majority have changed from "forty-two and less than fifty" to "thirty-eight and less than forty-six." Although the greater number of women workers in candy factories are under twenty-five years of age, a much larger proportion are twenty-five or over than in the period of the former report. At the same time, there has been a decrease in the proportion of girls sixteen to twenty-one years of age. Nearly three-fourths (69.8 per cent.) of the women and girls had worked in candy factories for two or more years; and nearly half (46.2 per cent.) had five or more years' experience.

¹ Massachusetts Minimum Wage Commission, Bulletin No. 18, Supplementary Report on the Wages of Women in Candy Factories in Massachusetts, January, 1919.

² Massachusetts Minimum Wage Commission, Bulletin No. 4, Wages of Women in the Candy Factories in Massachusetts, October, 1914.

Average weekly earnings by occupations are given in the following table. From this it appears that nearly two-thirds of the women and girls in the factories visited were receiving less than \$9 a week, or less than the minimum rate fixed by any of the Commission's wage boards during the period covered by the investigation. The low level both of rates and earnings is the more surprising, in view of the labor shortage and the competition with munition factories that existed at the time the investigation was made. It serves, however, to show the persistence of low wages in occupations which depend mainly upon the labor of unskilled women and girls.

MINIMUM WAGE COMMISSION.

TABLE IV. — *Showing Average Weekly Earnings of Women employed in 7 Massachusetts Confectionery Factories: by Occupations.*
 [Based on pay-roll records, June to September, 1918.]

NUMBER AND PER CENT. OF WORKERS EARNING —																							
OCCUPATION.	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND UNDER \$10.		\$10 AND UNDER \$11.		\$11 AND UNDER \$12.		\$12 AND OVER.		TOTAL.		
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	
Dipper, . . .	1	.6	6	3.5	14	8.0	16	9.2	14	8.0	33	19.0	18	10.3	17	9.8	21	12.1	34	19.5	174	100	
Plain packer, . .	6	2.4	12	4.8	21	8.5	34	13.8	44	17.8	42	17.0	39	15.8	21	8.5	13	5.3	15	6.1	247	100	
Fancy packer, . .	3	2.2	3	2.2	18	13.1	14	10.2	19	13.9	33	24.1	18	13.1	13	9.5	5	3.7	11	8.0	137	100	
Machine tender, . .	2	1.2	7	4.1	8	4.7	22	13.0	28	16.6	38	22.5	39	23.1	14	8.3	5	2.9	6	3.6	169	100	
Floor girl, . . .	4	5.5	9	12.3	24	32.9	10	13.7	9	12.3	10	13.7	3	4.1	3	4.1	—	—	1	1.4	73	100	
Candy wrapper, . .	2	1.8	3	2.6	7	6.2	14	12.3	21	18.4	16	14.0	14	12.3	12	10.5	12	10.5	13	11.4	114	100	
Nut sorter, . . .	—	—	—	—	1	20.0	1	20.0	2	40.0	1	20.0	—	—	—	—	—	—	—	—	5	100	
Molder,	—	—	3	23.1	2	15.4	6	46.1	—	—	—	—	1	7.7	—	—	1	7.7	—	—	13	100	
Miscellaneous, . .	4	2.9	6	4.3	23	16.5	27	19.4	13	9.4	17	12.2	16	11.5	10	7.2	10	7.2	13	9.4	139	100	
Total,	22	2.1	49	4.6	118	11.0	144	13.4	150	14.0	190	17.7	148	13.8	90	8.4	67	6.3	93	8.7	1,071	100	

RESULTS OF WAGE BOARDS ACTIVITIES IN 1918.

Four wage boards were in session during 1918. These were the Muslin Underwear, Office and Other Building Cleaners, Retail Millinery and Wholesale Millinery Wage Boards. In addition, members of the Retail Store Wage Board met in informal conference with the Commission.

Muslin Underwear Wage Board. — Following an investigation made in 1916-17 into the wages of women and girls employed in establishments manufacturing women's muslin underwear, aprons, kimonos, neckwear, and children's clothing, the Commission gave a public hearing for employers in these trades relative to the advisability of establishing a wage board. The Commission thereafter, as noted in its fifth annual report, formed a wage board for the occupation. The board held its first meeting in the fall of 1917, and after fourteen meetings, in the spring of 1918 submitted a report, estimating \$9.65¹ a week as the minimum cost of living for a self-supporting woman in the branches of the industry under consideration, and recommending a scale of minimum wage rates ranging from \$7 to \$9 a week. These determinations were provisionally approved by the Commission and a public hearing held for employers on April 26, 1918. As a number of objections to the determinations were raised at this meeting, the Commission recommitted the subject to the same wage board in the hope that wage determinations satisfactory to all parties concerned might be reached. The board reconvened on June 7, 1918, and unanimously voted to cancel its previous determinations and report in place a scale of minimum wage rates ranging from \$6 to \$9 a week, together with changes in recommendations regarding apprenticeship. After a second public hearing, June 28, 1918, the Commission finally approved the recommendations of the board and entered a decree² embodying these determinations. This decree became effective Aug. 1, 1918.

Office and Other Building Cleaners' Wage Board. — An

¹ For items of the budget, see Appendix No. 3.

² Statement and Decree concerning the Wages of Women in Muslin Underwear, Petticoat, Apron, Kimono, Women's Neckwear and Children's Clothing Factories in Massachusetts, July 1, 1918.

investigation made in 1917 into the wages of women employed as office and other building cleaners in Massachusetts¹ showed that the wages paid to a substantial number of such employees were inadequate to supply the necessary cost of living and to maintain them in health. The Commission accordingly established a wage board for the occupation, which held its first meeting April 10, 1918, and on June 19 submitted a majority report giving a minimum cost of living budget of \$11.54.² The determinations of the board provided minimum wage rates of 30 cents an hour for night work if amounting to less than forty hours a week, and 27 cents an hour for day work if amounting to less than forty-five hours a week, with provision for a \$12 minimum wage in case of day or night work in excess of these hours.

A minority report submitted on the 21st of June recommended a minimum hourly rate of 25 cents. In an effort to secure agreement, the Commission recommitted the subject to the board (July 15). A second majority report presented July 18 recommended 30 cents an hour for the night shift and 26 cents an hour for the day shift, without a minimum weekly rate. These recommendations were provisionally approved by the Commission and a public hearing given for employers August 12. At this hearing objections were raised by some of the employers, who claimed that a flat hourly rate would operate unjustly against buildings that have a long night shift. In attempting to meet these objections the Commission was confronted with certain technical questions as to the limitations governing the determinations of a wage board. These questions have been referred to the Attorney-General, and pending an opinion no further action has been taken.

Retail Millinery Wage Board. — A wage board for the retail millinery occupation was established in the spring of 1918 following an investigation made by the Commission in 1916-17 into the wages paid to women and girls in the millinery trades in Massachusetts. The board held its first meeting on April 16, and on May 7 submitted to the Com-

¹ Massachusetts Minimum Wage Commission, Bulletin No. 16, Wages of Women employed as Office and Other Building Cleaners in Massachusetts, May, 1918.

² For items of the budget see Appendix No. 3.

mission a unanimous report. This included a cost of living budget of \$11.64¹ and recommendations for a minimum wage rate of \$10 a week for experienced women, with a scale of rates ranging from \$3 to \$7.50 a week for learners and apprentices. The Commission provisionally approved this report and gave a hearing for employers on June 28. At this hearing no one appeared in opposition to the board's determinations. The Commission thereafter finally approved the determinations of the board and entered a decree² for the occupation, effective Aug. 1, 1918.

Wholesale Millinery Wage Board. — Following the investigation made in 1916-17 into the wages paid in the millinery trades, a supplementary investigation of wages in the wholesale millinery occupation was made by the Commission in the summer of 1918. This showed but slight improvement in wage conditions, and indicated that a substantial number of the women employed were receiving wages inadequate to meet the necessary cost of living and to maintain them in health. After holding a conference with employers in the industry the Commission proceeded to establish a wage board. The first meeting of the board was held October 10, and after four meetings, on November 13 the board submitted to the Commission a unanimous report of its determinations. A cost of living budget of \$12.50 a week was voted as the minimum for a self-supporting woman in the occupation,¹ and a minimum wage rate of \$11 a week for experienced workers, with a scale of rates ranging from \$6 to \$9 for learners and apprentices was recommended. After provisionally approving this report the Commission held a public hearing November 30. No employers appeared in opposition to the board's determinations. The Commission thereafter approved these determinations and entered a decree³ for the occupation to become effective Jan. 1, 1919.

Retail Store Wage Board. — A petition from retail store employees asking for a revision of the minimum rates fixed for women and girls employed in retail stores, in view of the

¹ For items of the budget, see Appendix No. 3.

² Statement and Decree concerning the Wages of Women in Retail Millinery Workrooms in Massachusetts, July 1, 1918. See also Appendix No. 4.

³ Statement and Decree concerning the Wages of Women in the Wholesale Millinery Occupation in Massachusetts, Nov. 30, 1918. See also Appendix No. 3.

increased cost of living since the retail store decree went into effect (Jan. 1, 1916), was submitted to the Commission in the fall of 1918. In response to this request the Commission invited the members of the Retail Store Wage Board to an informal conference on November 29. A majority of the members of the board were present, including representatives of employers, employees, and of the public. At this meeting the following resolution was unanimously voted: —

That it is the consensus of opinion of the members of the Retail Store Wage Board acting informally that the minimum wage rate in effect for female employees in retail stores should be raised immediately to at least \$10 per week for experienced workers nineteen years of age or over, and that the corresponding rates for other workers should be raised to \$6, \$7 and \$8.50, respectively.

That firms paying less than these rates are paying wages too low to maintain the workers in health and decency.

That it is recommended that the Minimum Wage Commission give proper publicity to this action through the regular media.

That this action is taken with the understanding that the Commission will endeavor strictly and promptly to enforce the existing decree.

This resolution was then given to the press. Through the courtesy of the Retail Trade Board of the Boston Chamber of Commerce and the Massachusetts Chamber of Commerce, copies of the resolutions were sent to their members.

ENFORCEMENT OF THE COMMISSION'S DECREES.

Women's Clothing Industry. — The wage decree for women and girls employed in women's clothing factories in Massachusetts¹ went into effect Feb. 1, 1917, and provided a minimum rate of \$8.75 a week for experienced employees, and rates of \$6 and \$7 weekly for learners and apprentices. An inspection of the pay rolls of establishments covered by the decree was conducted by the Commission in the spring of 1917. A second inspection was started in November, 1917, and completed in 1918. Visits were made in 1918 to 32 establishments, mostly dressmaking and women's custom tailoring shops. Full compliance with the decree¹ was found

¹ Statement and Decree concerning the Wages of Women in Women's Clothing Factories in Massachusetts, Sept. 28, 1916.

in 30 of these establishments employing 99 women and girls. In only 2 establishments was there failure to comply with the recommendations of the Commission. Out of the entire number of women for whom a week's wage record was secured, only 15, or 8.4 per cent., were receiving less than the minimum wage fixed for the occupation. Wage adjustments were made for 5 employees who at the time of the inspection were receiving less than the minimum required, and one special license was granted in accordance with the provision of section 9 of the Acts of 1912 as amended.

Men's Clothing and Men's Furnishings Industry. — Two wage decrees went into effect in the winter of 1918. These were the Men's Clothing and Raincoat Decree,¹ which became operative Jan. 1, 1918, and the Men's Furnishings Decree,² so called, which became operative Feb. 1, 1918. The first-mentioned decree fixes a minimum wage rate of \$9 a week for experienced female employees over eighteen years of age, and a rate of \$7 weekly for learners and apprentices. The second decree provides a \$9 weekly minimum for experienced women, and rates of \$7 and \$8 for less experienced workers.

Inspection of the pay rolls of establishments manufacturing men's outer garments to determine compliance with the recommendations of the Commission was started shortly after the decree went into effect. Agents of the Commission visited 99 establishments, and a transcript was made of a week's pay-roll record for 1,693 female employees in these factories. Full compliance with the provisions of the decree was found in 88 firms employing 946 women and girls. Only 19 cases of violation of the decrees were found. These were in 11 firms and represent 1.1 per cent. of the total number of women for whom wage data were secured. In 2 of these cases adjustments were made to bring the wage up to the required minimum. In 13 cases special licenses were granted. Comparison of wage data shown in Table V., page 31, for

¹ Statement and Decree concerning the Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts, Aug. 31, 1917.

² Statement and Decree concerning the Wages of Women employed in the Manufacture of Men's and Boys' Shirts, Overalls and other Workingmen's Garments, Men's Neckwear and other Furnishings, and Men's, Women's and Children's Garters and Suspenders in Massachusetts, Oct. 26, 1917.

23 firms from which records were secured in 1915 and in 1918 shows that since the first investigation made by the Commission the proportion of women receiving \$9 a week or over has increased from 22.5 per cent. in 1915 to 77.8 per cent. in 1918, in men's clothing factories, and from 25.2 to 86.2 per cent. in raincoat factories.

Inspection of the pay rolls in factories and shops engaged in manufacturing workmen's garments, men's furnishings, and other articles specified in the Men's Furnishings Decree, was started in February, 1918. A transcript of a week's pay roll was made in 39 establishments. Full compliance with the recommendations of the Commission was found in 22 of these. In 17 firms there were 39 cases of violations. Of these, 11 were adjusted by raising the wage of the employees in question to the minimum. In 2 cases special licenses were granted, authorizing the employment of women physically defective at a wage less than the minimum fixed for the occupation.

TABLE V. — *Showing Rates of Payment for One Week for Women employed in 23 Men's Clothing and Raincoat Factories in Massachusetts, 1915 and 1918.*

INDUSTRY AND YEAR.	NUMBER AND PER CENT. OF WORKERS WITH WEEKLY RATES OF —														TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.		Num-ber.	Per Cent.
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.		
MEN'S CLOTHING FACTORIES: —																
1915,	4	1.1	14	3.6	36	9.3	74	19.1	91	23.5	81	20.9	87	22.5	387	100
1918,	—	—	—	—	2	.7	14	5.1	20	7.3	25	9.1	214	77.8	275	100
RAINCOAT FACTORIES: —																
1915,	4	2.9	2	1.4	10	7.2	36	25.9	35	25.2	17	12.2	35	25.2	139	100
1918,	—	—	—	—	—	—	—	—	14	7.4	12	6.4	163	86.2	189	100

Retail Stores. — The Retail Store Decree,¹ which has been in effect since Jan. 1, 1916, fixes a minimum wage rate of \$8.50 a week for experienced employees nineteen years of age and over, and a scale of rates ranging from \$5 to \$7 a week for learners and apprentices. An inspection to determine compliance with the decree was made in 1916. A second inspection was commenced in the fall of 1917 and completed in the following spring. Agents of the Commission visited 74 stores in 1918, and secured wage records for 1,695 female employees. General compliance with the decree was found in the majority of establishments visited. Very slight increases in wages, however, above the established minimum rates were found. The following petition for a revision of the rates established in 1916 was submitted to the Commission, November, 1918: —

Since the decree of the Minimum Wage Commission establishing minimum rates of pay for women employed in retail stores went into effect in 1916, the cost of living has risen to such a high figure that many of the women employed in stores are worse off than they were before the decree went into effect. It is true that some stores have advanced wages and some have given bonuses, but there are many that have made no change, and as there is no organization among store workers they are not in a position to take effective action in their own behalf. We therefore desire to call these facts to the attention of the Minimum Wage Commission, and to petition the Commission for a revision of rates adequate to cover the cost of living and to maintain the workers in health.

Action was taken by the Commission as described in pages 27 and 28 of this report.

Women's Muslin Underwear and Retail Millinery Industry. — Two of the Commission's decrees went into effect Aug. 1, 1918. These were the decree for establishments engaged in the manufacture of women's muslin underwear, petticoats, aprons, kimonos, women's neckwear and children's clothing,² and that for retail millinery workrooms.³ The first fixes a

¹ Statement and Decree concerning the Wages of Women in Retail Stores in Massachusetts, Sept. 15, 1915.

² Statement and Decree concerning the Wages of Women in Muslin Underwear, Petticoat, Apron, Kimono, Women's Neckwear and Children's Clothing Factories in Massachusetts, July 1, 1918.

³ Statement and Decree concerning the Wages of Women in Retail Millinery Workrooms in Massachusetts, July 1, 1918.

minimum weekly rate of \$9 for women and girls eighteen years of age or over who have had fifty-two weeks' experience in the needle trades, with rates of \$6, \$7, and \$8 weekly for those with less experience. The second provides a minimum of \$10 a week for experienced workers (women nineteen years of age or over, with four seasons in the trade), and rates ranging from \$3 to \$7.50 a week for learners and apprentices.

Inspection of the pay rolls of establishments affected by these decrees to determine compliance was commenced by the Commission in November, and is still in progress. During the period covered by this report, 70 firms manufacturing muslin underwear, petticoats, aprons, kimonos, women's neckwear and children's clothing, and 61 retail millinery workrooms, were visited. Wage records were secured for 1,394 employees in the first mentioned firms, and for 318 in millinery establishments.

One hundred per cent. compliance was found in 54 of the muslin underwear firms. In 15 establishments there were 31 cases where the rates fell below the minimum. Of these, 17 were adjusted by raising the wages. Of the millinery shops visited, 58 were complying with the decree. The full results of the inspection will appear in the next annual report.

FIVE YEARS OF MINIMUM WAGE IN MASSACHUSETTS.

A little more than five years have passed since the Minimum Wage Commission began its work, July 1, 1913. During that time the Commission has investigated wage conditions of women and girls in twenty different occupations in the Commonwealth. This represents an average of four investigations a year. The industries included, in the order of investigation, are: the brush, corset, confectionery,¹ laundry, retail store, paper box, women's clothing, hosiery and knit goods, men's clothing, muslin underwear (including muslin underwear, petticoat, apron, kimono, women's neckwear, and children's clothing), men's furnishings, hotel and

¹ A second investigation of wages of women in candy factories in Massachusetts was made in October and November, 1918.

restaurant, millinery trades (including wholesale and retail establishments, straw hat factories, and flower and feather shops), office and other building cleaning, cotton textile, canning and preserving. The reports of these investigations have been published in thirteen bulletins¹ in addition to the Commission's annual reports. Another bulletin is in press at the present time.²

In accordance with the provision of the law,³ the occupations selected were those where there was reason to believe that a considerable number of women were receiving less than a living wage. Wage boards have been established for twelve of these occupations. These are: the brush, corset, laundry, candy, retail store, women's clothing, men's clothing, men's furnishings, muslin underwear, office and other building cleaners, wholesale millinery, and retail millinery. For six industries — hosiery and knit goods, cotton goods, straw hat factories, flower and feather establishments, hotels, and restaurants — it did not seem advisable at the time the inquiry was completed to establish wage boards. In the case of restaurants a letter⁴ was sent to employers asking that they voluntarily increase rates to a living wage. Similar action may be taken in other cases. An attempt to form a wage board for the paper box industry failed. Legal difficulties preventing action were encountered in connection with the Corset and Candy Wage Boards.

Acting on the recommendations of its wage boards, the Commission has issued nine wage decrees establishing minimum rates for women and girls in as many different occupations in the State, and the determinations of another wage board⁵ are under consideration. An outline of the provisions of the various decrees entered to date appears in Appendix No. 4 of this report.

Reinspections directly following the decrees have shown general compliance except in the case of the laundries, where the employers instituted injunction proceedings to restrain

¹ A list of the publications of the Commission is given on the inside of the cover of this report.

² Supplementary Report on the Wages of Women employed in Candy Factories in Massachusetts, Bulletin No. 18, January, 1919.

³ Acts of 1912, c. 706, as amended.

⁴ See pp. 15, 16.

⁵ Office and Other Building Cleaners' Wage Board.

the Commission from examining their books. In the case of two industries — the brush and the retail store — subsequent investigations made for the purpose of determining the effect of the wage decrees in these occupations indicated a substantial increase in wage rates for a considerable proportion of workers.¹

Comparison of wage rates at the time of reinspections with the rates for the same firms at the time of the original investigation has generally shown a material advance. While other factors have contributed to wage increases, the evidence at hand indicates that compliance with the Commission's decrees has had a definite influence.

OUTLOOK FOR 1919.

With the status of the minimum wage law practically assured, many of the restrictions that have hampered the work of the Commission in previous years are removed. Wider opportunity for action than has been possible in the past is offered, and at the same time larger responsibilities are imposed. Provisions of the law that up to the present time have been inoperative must be enforced. Activities that have been stayed pending the court decision must be resumed. A broader program of investigation is called for to meet the changes incident to conditions resulting from the war.

War-time Problems. — The war has served to emphasize the need for protecting the wages of unskilled women workers. One of the strange anomalies of the war-time employment of women has been the existence side by side of industries paying exceptionally high wages, and others where the wage level was only slightly above that in the pre-war period. Outside of the distinct war industries the wages of the majority of women workers have lagged far behind the cost of living. According to data collected by the United States Bureau of Labor Statistics, the increase in retail food prices alone, from September 15, 1913, to September 15, 1918, has

¹ The Effect of the Minimum Wage Decree on the Brush Industry in Massachusetts, Sept. 16, 1915. Preliminary Report on the Effect of the Minimum Wage in Massachusetts Retail Stores, November, 1916.

been 72 per cent.¹ For the masses of women workers no corresponding wage increases have been made during this period.

Some indication of the increased cost of living for self-supporting women in this State is given by the series of minimum budgets approved by the Commission's wage boards from 1913 (the year the Commission began its work) to the present year. These budgets range from \$8.71 a week, voted by the first wage board,² to \$12.50, voted by the latest wage board.³ In the majority of instances the minimum wage rates recommended by the boards and approved by the Commission have been lower than the amount stated as the least on which a self-supporting woman could maintain herself in health and decency. Thus, the wage decrees of the Commission for the period under consideration have varied from \$8⁴ a week for experienced women workers in 1915, to \$11⁵ in the fall of 1918, which represents the highest wage award made by the Commission.

Revision of Rates. — In general, the rates established for industries in this State are lower than the corresponding rates fixed by wage boards in other States having minimum wage laws. This is in part due to the provision of the Massachusetts law,⁶ which requires that the financial condition of the industry for which a wage board is formed shall be taken into consideration in reaching wage determinations. Nebraska is the only State with a similar requirement. Provision, however, is made in the law⁶ for revision of established rates to meet changed conditions. Several of the Commission's wage boards have advised that the rates they recommended should be advanced as soon as industrial conditions would permit. Request for an increase in rates for one of the occupations for which wage decrees are in effect has already been made by employees in the industry. Presumably more requests of this nature will come to the Commission in the ensuing year.

¹ United States Bureau of Labor Statistics Monthly Review, November, 1918, p. 77.

² Brush Makers Wage Board. See Appendix No. 3.

³ Wholesale Millinery Wage Board. See Appendix No. 3.

⁴ Statement and Decree concerning the Wages of Women in Laundries in Massachusetts, July 1, 1915. See Appendix No. 4.

⁵ Statement and Decree concerning the Wages of Women in the Wholesale Millinery Occupation in Massachusetts, Nov. 30, 1918. See Appendix No. 4.

⁶ Acts of 1912, c. 706, § 8, as amended.

Wage Increases in Other States. — In several of the States where a minimum wage law is in effect, increases in minimum wage rates were recommended during the past year on account of the abnormally high cost of living resulting from war conditions. In October the State War Board of Kansas submitted to the Industrial Welfare Commission recommendations as to working conditions, hours and wages of women employed in factories, which included provision for a minimum weekly rate of \$11 for all experienced women factory workers throughout the State.¹

The Industrial Welfare Commission of Oregon in April, 1918, issued a series of orders² to take effect June 12 of that year, which supersedes existing regulations for the occupations included. These orders provided minimum wage rates for experienced women workers throughout the State, as follows: in mercantile establishments, \$11.10 a week; in laundries, telephone and telegraph exchanges, personal service establishments and in manufacturing establishments, \$11.61 a week; and in offices, \$48 a month. In addition to this a War Emergency Conference was called by the Industrial Welfare Commission to consider the employment of women "during the war and for a reasonable time thereafter."

As a result of recommendations made by the War Emergency Conference³ held in Olympia, Washington, August, 1918, the Industrial Welfare Commission of that State issued an order effective Nov. 10, 1918, fixing \$13.20 as the new minimum weekly rate for women for all occupations in the State during the period of the war.⁴ This order superseded rates previously established by the Commission, ranging from \$8.90 to \$10 a week.

In California minimum wage rates established for women

¹ Letter from Industrial Welfare Commission Nov. 5, 1918. In making its recommendations, which were approved by the Industrial Welfare Commission, the Board stated: "In our opinion the adoption of the same [the recommendation] is important both as a public health measure and as a measure for better citizenship, as well as the proper and necessary protection of women workers against the great stress of war-time industry, and as a protection to their health and welfare. We also feel that the interests of the manufacturing industry in the State of Kansas will be subserved by the above recommendation."

² Industrial Welfare Commission of the State of Oregon. Orders, April 12, 1918.

³ Recommendations of the War Emergency Conference held in Olympia Aug. 28 and 29, 1918, and adopted by the Industrial Welfare Commission Sept. 10, 1918. Olympia, Washington, 1918.

⁴ United States Bureau of Labor Statistics Monthly Review, November, 1918, pp. 177-179.

and minors in the fruit and vegetable canning industry were materially increased by the Industrial Welfare Commission in orders issued April 3, 1918, and effective June 3, 1918. The advance applies to both time and piece workers.¹

Advance in Minimum Wage Legislation.—The scope of minimum wage legislation has been considerably broadened during the war—to some extent, because of the war. A number of these changes were noted in the Commission's previous report.² The most notable advance in minimum wage legislation in this country³ during the year just ended is the establishment of the District of Columbia minimum wage law by act of Congress Sept. 19, 1918.⁴ "This action brings the number of jurisdictions in which such laws exist up to thirteen, and is the first new legislation in the field since the Oregon statute was held constitutional by the Supreme Court of the United States, April 9, 1917."⁵ The law is mandatory in its powers, and applies to all women-employing occupations, with the exception of domestic service.

The English Trade Boards Act of 1909, which originally covered four industries, was amended Aug. 8, 1918, by an act⁶ effective Oct. 1, 1918, which greatly extends its scope and provides for more efficient administration. "The new act permits the Minister of Labor to apply its provisions to any trade in which it appears to him that no adequate machinery exists for the effective regulation of wages, so that, having regard to the rates prevailing in the trade, or any part of it, it seems expedient that the law should be made to apply." It is interesting to note that "the particular occasion for the act is the prospective readjustment of labor at the close of the war, which seems likely to accentuate the problem of inadequate wages for unskilled and unorganized

¹ United States Bureau of Labor Statistics Monthly Review, November, 1918, pp. 171, 172.

² Massachusetts Minimum Wage Commission, Fifth Annual Report, pp. 8-11.

³ Other important events in the progress of the minimum wage in the United States during the past year have been that the Kansas Industrial Welfare Commission issued its first wage orders providing the following rates: for mercantile establishments, \$8.50, effective March 18; for laundries, \$8.50, effective May 14; for telephone operators, \$6 to \$9, effective September 5. Because of the favorable court decision in December, 1917, the wage orders of Minnesota established in 1914 are now valid.

In Manitoba, British Columbia, a minimum wage of \$9.50 a week was established for women laundry workers, and \$10 for women employed in food-stuff factories.

⁴ United States Bureau of Labor Statistics, Monthly Labor Review, October, 1918, pp. 177-181 (text of act is given in full).

⁵ *Ibid.*, November, 1918, p. 177.

⁶ *Ibid.*, pp. 179-181.

workers, particularly women.”¹ The extension of wage regulations was considered the most effective method of meeting the problems of reconstruction in so far as they affect women workers. In this connection a statement from the British Labour Gazette is significant:

The eight years’ experience of the satisfactory results achieved by the trade boards, whose activities have proved of benefit not merely to the workers but to all sections of the trades which have worked under them, pointed to an extension of the Trade Boards Act of 1909 as the best means of meeting the situation.²

Reconstruction Problems. — Here as well as in Great Britain the problems of the reconstruction period demand, even more than those of war-time, increased activity on the part of wage boards. The release of thousands of women from war industries will tend inevitably to reduce wages in other occupations. The situation created by a surplus labor market of unskilled and semi-skilled women and girl workers will be rendered more acute by the continuance of the cost of living at approximately the present high level. With the task of feeding and clothing destitute millions in Europe facing this country, prices for food and wearing apparel are not likely to decline. The prohibition on building operations during the war has increased the congestion in cities and resulted in an advance in rents. The cost of building materials and the increases in street railway fares give no indication of relief in this direction. As these items — food, clothing, rent, and car fare — are the most important ones in the working girl’s budget, the need for an upward revision of wage rates become more evident. To assist in securing an approach to a living wage for those groups of workers who are least able to secure it for themselves; to protect women and child workers, both in their own interest and in the interest of society, — this is the obligation imposed by law upon the Minimum Wage Commission.

Needs of the Commission. — To meet these demands there is need for a larger appropriation than has been granted in the past. There is also need for legislative enactments to

¹ United States Bureau of Labor Statistics, *Monthly Labor Review*, November, 1918, p. 189.

² Great Britain Labour Gazette, August, 1918, p. 308.

permit the more effective performance of the Commission's legal duties. In both respects the requests made for the ensuing year are conservative estimates of the minimum requirements.

Another need, equally important, although of a different nature, is for more intelligent understanding of the Commission's work. Employees should recognize that the Commission has no authority of itself to fix wages; that its power in this direction is confined to approving or rejecting the determinations of its wage boards, which are made up of representatives of employers and employees in the occupation in question, and of representatives of the public; that the law expressly requires that the financial condition of the industry for which a wage board is established shall be taken into consideration in determining minimum rates; and that it is for this reason that the wage rates recommended have, in the majority of instances, been less than the minimum cost of living.

Employers should recognize that the Commission in its work of investigating wage conditions, and in making inspections to determine compliance with wage decrees, is simply performing its duty as required by law; that it intends to be absolutely fair in its methods; and that it welcomes their constructive criticism and desires their co-operation. There is a growing appreciation among employers of the beneficial results in the industrial situation of this State of the work of the Commission when it receives due co-operation.

Finally, the public should recognize the limitations placed by law upon the Commission's authority; that its powers are not mandatory, but advisory only; that the enforcement of its decrees rests upon public opinion; that the most essential part of its work — so far as the establishment of minimum wage rates are concerned — is performed through the agency of its wage boards; that, aside from their specific function in determining rates, these boards perform a distinct educational and social service in bringing together groups with conflicting views, and enabling them to see that through mutual concessions it is possible to reach a common understanding.

RECOMMENDATIONS.

Legislation.

The Commission renews the recommendation contained in its last three annual reports for legislation to enable it to fill vacancies on wage boards. This authority is required to meet legitimate emergencies, and to prevent attempts to interrupt the work of the Commission through blocking the activities of its wage boards. The experience of the Commission has served to demonstrate the need for this legislation.

In order to secure proper publicity for the Commission's notices, further legislation with provision for its enforcement is necessary. The frequent violations of the present regulations show the need for an amendment to the existing law. The Commission therefore asks for authority to require employers of women and minors to post in their establishments notices of hearings, nominations for wage boards and decrees affecting their employees.

To ascertain the adequacy of wages paid, and to determine compliance with the Commission's wage decrees, it is essential that information as to weekly hours of employees should be available. The Commission asks for authority to require employers of women and minors in industries which it intends to investigate to keep such records when so requested.

Appropriation.

The appropriation granted by the General Court for the fiscal year ending Nov. 30, 1918, was \$18,000. The purposes for which this money was expended is shown in the financial statement appended. In each preceding report the Commission has emphasized the need for a larger appropriation to permit the proper execution of its statutory duties, and to provide for the normal development of its work.

It is especially urgent that an increase in appropriation should be granted for the ensuing year. The decision upholding the constitutionality of the minimum wage law places upon the Commission the responsibility for carrying out those provisions of the law which hitherto have been

inoperative. It also calls for the completion of the work undertaken in the past and interrupted by court proceedings. The abnormally high cost of living resulting from war conditions is bringing to the Commission requests for further action with respect to wage boards, involving increased expenditure in this direction.

Meanwhile the expansion in the regular work of the Commission calls for additional machinery for its proper administration. The law requires that the Commission shall from time to time determine compliance with its decrees. This means a steadily increasing number of reinspections. There are now in effect nine wage decrees in as many different occupations in the State, and several new decrees will become operative in 1919. The additions to the staff necessary to carry out the program, the salary increases required to retain an efficient working force, the general increases in the cost of supplies, — all involve additional expense.

The Commission therefore asks for an appropriation of \$25,000 for the fiscal year 1919, — an increase of \$7,000 over the amount granted in 1918. This appropriation is intended to provide for the inspections outlined above; to support the work of wage boards that have been authorized, and those that are likely to be established during the year; to complete the studies of the canning and confectionery industries that have been undertaken; to permit an investigation of wage conditions in three or four additional occupations; and to meet the necessary operating expenses of the department.

The budget recommended for 1919 calls for a smaller appropriation than that asked for in any previous year, and represents the minimum on which the Commission can carry on effectively the work outlined above.

Respectfully submitted,

CHARLES F. DUTCH, *Chairman*.
MABEL GILLESPIE.
ARTHUR C. COMINS.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following tabular statements showing the number of women workers for whom wage records were secured in the investigations conducted by the Commission and the number of establishments inspected during 1918 to determine compliance with the Commission's wage decrees, together with a summary of the expenditure from the appropriation granted by the General Court for this year.

INVESTIGATIONS MADE BY THE MINIMUM WAGE COMMISSION IN 1918.

Investigations made under Section 3 of Minimum Wage Law.

INDUSTRY.	NUMBER OF ESTABLISHMENTS INVESTIGATED.			NUMBER OF WOMEN FOR WHOM WAGE RECORDS WERE OBTAINED.			
	Wage Records available.	Wage Records Lacking or Inadequate. ¹	Total.	Records Tabulated.	RECORDS NOT USED FOR GENERAL TABULATION.		Total.
					Used only in Rate Tables.	Excluded from All Tabulation.	
Cotton,	3	—	3	240	—	1	241
Cotton small wares, .	2	1	3	65	—	1	66
Restaurants, ² . . .	70	—	70	1,624	—	—	1,624
Wholesale millinery, ² .	7	—	7	108	—	—	108
Fish canning, . . .	11	—	11	378	—	209	587
Preserve, pickle, vegetable, sauce and meat-canning firms.	11	—	11	282	—	107	389
Candy,	7	—	7	1,232	66	377	1,675
Total,	111	1	112	3,929	66	695	4,690

¹ Includes only firms where pay roll was not kept, or records were illegible or inadequate (less than one year's pay roll).

² Second investigation (preliminary to forming wage board).

Investigations made under Section 14 of Minimum Wage Law.

INDUSTRY.	Number of Establish- ments investigated.	Number of Women for whom Wage Records were obtained.
Men's clothing,	99	1,695
Muslin underwear,	70	1,394
Men's furnishings,	39	1,502
Retail millinery,	61	318
Retail stores,	74	1,695
Women's clothing,	32	179
Total,	375	6,783

FINANCIAL STATEMENT.

Appropriations:—

Salaries and expenses of commissioners, . .	\$2,300 00	
Salaries,	9,500 00	
Compensation and expenses of wage boards, . .	2,000 00	
Credit for mileage returned,	\$263 00	
Traveling and contingent ex- penses,	4,200 00	
	<hr/>	4,463 00
		<hr/> \$18,263 00

Expenditures:—

Salaries and expenses of commissioners, . .	\$1,289 00	
Salaries,	9,497 94	
Compensation and expenses of wage boards, . .	1,703 85	
Traveling and contingent expenses:—		
Rent,	\$1,599 96	
Light,	27 28	
Traveling expenses,	481 76	
Telephone and telegraph,	205 71	
Express and messenger,	8 21	
Stationery and office supplies,	786 68	
Printing,	937 33	
Postage,	109 82	
Books, periodicals, clippings,	179 38	
Advertising,	38 26	
Miscellaneous,	34 05	
	<hr/>	4,408 44

Amount carried forward, \$16,899 23

Amount brought forward, \$16,899 23

Unexpended balance reverting to State treasury: —		
Salaries and expenses of commissioners,	\$1,011 00	
Salaries,	2 06	
Compensation and expenses of wage boards,	296 15	
Traveling and contingent expenses,	54 56	
	<hr/>	1,363 77
		<hr/> \$18,263 00

Respectfully submitted, -

ETHEL M. JOHNSON.

Secretary.

APPENDICES.

APPENDIX No. 1.

MASSACHUSETTS SUPREME JUDICIAL COURT DECISION UPHOLDING THE CONSTITUTIONALITY OF THE MAS- SACHUSETTS MINIMUM WAGE LAW (HOLCOMBE *v.* CREAMER, 231 MASS. 99).

The opinion given by Chief Justice Rugg September 24, 1918, is presented below without the citations.

OPINION.

RUGG, C.J. The question presented by this record is the constitutionality of St. 1912, c. 706, as amended by St. 1913, cc. 330 and 673, and St. 1914, c. 368, establishing the minimum wage commission. Sections 1 and 2 of the act regulate the appointment, compensation, clerical assistance and office accommodations of the commission. Section 3 states its duty to be "to inquire into the wages paid to the female employees in any occupation in the commonwealth, if the commission has reason to believe that the wages paid to a substantial number of such employees are inadequate to supply the necessary cost of living and to maintain the worker in health." Section 4 authorizes the commission, when of opinion after investigation that the wages of a substantial number of women in any occupation are thus inadequate, to form a wage board composed of an equal number of representatives of the employers and of the employees in the specified industry, and of one or more representatives of the public, not exceeding one-half the number of representatives of either of the other parties. Section 5 empowers the commission to send to such wage board all pertinent information in its possession relative to the wages in the occupation in question, and requires that the wage board, after taking into consideration "the needs of the employees, the financial condition of the occupation and the probable effect thereon of any increase in the minimum wages paid, shall endeavor to determine the minimum wage, whether by time rate or piece rate, suitable for a female employee of ordinary ability in the occupation in question, or for any or all of the branches thereof, and also suitable minimum wages for learners and apprentices and for minors below the age of eighteen years. When two thirds of the members of a wage board shall agree upon minimum wage determinations, they shall report such determinations to the commissions together with the reasons therefor and the facts relating thereto, and also the names so far as

they can be ascertained by the board, of employers who pay less than the minimum wage so determined." Section 6 directs the commission to review each report made by a wage board, empowering it to approve or to disapprove any or all of its determinations, or to recommit the subject to the same or a new wage board. If the commission approves any or all of the determinations of the wage board it shall then, after seasonable notice, give public hearing to all employers paying less than the minimum wage thus tentatively approved. If, after such public hearing, "the commission finally approves the determination, it shall enter a decree of its findings and note thereon the names of employers, so far as they may be known to the commission, who fail or refuse to accept such minimum wage and to agree to abide by it." The commission shall publish a summary of its findings and its recommendations and the facts as it finds them to be as to the acceptance of its recommendations by employers in the given industry, together with the names of those adopting or refusing to follow such recommendations. By section 14 the commission is vested with power to reinvestigate these facts from time to time thereafter and to publish the names of employers failing to observe its recommendations. Any employer, who files a declaration under oath to the effect that compliance with the recommendations of the commission would render it impossible for him to conduct his business at a reasonable profit, shall be entitled to a review of such recommendations by the Supreme Judicial Court or the Superior Court according to equity procedure. If the court finds that the averments of the declaration are sustained, it may restrain the publication of the complainant's name, but not otherwise affect the determination of the commission. Section 8 provides for reinvestigation after a minimum wage has been established, with the same procedure as in an original inquiry. Section 9 authorizes the commission to issue special certificates for employment in certain instances to women physically defective. Section 10 confers upon the commission similar powers respecting wages paid to minors in any occupation in which the majority of employees are minors. Section 11 enjoins employers to keep registers of the names, addresses, occupation and weekly wages of women and minor employees and to submit them to the commission or director of the bureau of statistics on request. Section 12 relates to the gathering of statistics. Section 13 prohibits employers from discrimination against employees because of testifying or serving on a wage board or giving information concerning conditions of employment. Section 15 imposes a penalty upon "any newspaper refusing or neglecting to publish the findings, decrees and notices of the commission at its regular rates for the space taken," and section 16 exonerates the members of the commission and publishers of newspapers from actions for damages for publishing the names of employers in accordance with the act, "unless such publication contains some wilful misrepresentation."

The facts in the case at bar are that proceedings were had in accordance with the terms of the act respecting wages paid female employees in laundries. A determination finally was made by the commission fixing a minimum weekly wage schedule varying according to experience in the work from \$6 to \$8. No review of this determination appears to have been sought in the courts. Publication thereof was made as provided in the act. Thereafter the commission proceeded to investigate wages actually paid to such employees in order to ascertain what employers were complying with its recommendations. The respondents, who are owners or officers of corporate owners of laundries, refused to furnish the required information. This proceeding is brought to compel them to do so.

It is manifest from the summary of its various provisions that the act is not mandatory as to rates of wages. It contains no words of compulsion upon either employer or employee. It does not restrain freedom of action by either employer or employee as to the wages to be paid or received. Any woman and her employer may make and enforce any agreement respecting compensation for her labor unhampered by any provision of the act. There is no constraint affecting property or conduct. The act does not purport to exercise any check with respect to liberty of contract, use of property, or management of business. The act does not require payment to any woman or minor of more than fair compensation, however small it may be. It does not prevent one or any number of women, who do not desire for any reason to earn their entire support by labor, from working for less wages than recommended by the commission. It does not prohibit any employer from contracting for the services of such women for any compensation mutually agreed upon. There may be divers reasons why such contracts may be wanted by working women, such as physical or mental weakness and consequent inability to earn the full wage, reliance upon other sources of income or support, and desire to work for a short time in order that remaining hours may be devoted to study or other activities. These considerations are left to operate to their full extent without hindrance from the statute. The chief purpose of the act as gathered from its words is that there shall be an investigation as to facts, a statement of the conclusions drawn from those facts and a making public of those conclusions, all by or under the supervision of an administrative board. The utmost bound of the authority of the commission is to make recommendations. It cannot issue any orders. Although in several places in the act occur the words "decree" and "decree of its findings," it is manifest that they signify only advisory suggestions and not authoritative directions. "Decree" is not used in its judicial sense in the statute. It is the equivalent of a counsel succinctly stated. This is true also of the words "obeying its decree" in section 14, where it is plain from the context that they mean only following its recommendations. In its strictly legal significa-

tion a decree is the formal expression of a final decision which can be issued only by a court clothed with jurisdiction to compel obedience to that decision by invoking the power of the state to that end, so far as necessary. The whole act shows that "decree" used in this statute was not intended to have any such meaning.

Doubtless it is one aim of the act to bring to bear the force of public opinion in support of the acceptance of the recommendations of the commission. This may be a kind of coercion. But it can go no further than ascertained and published facts induce members of the public as individuals to the action of giving or withholding custom or patronage. The public money could not be expended for the support of the commission unless its functions related to a public as distinguished from a private matter. It hardly can be pronounced a matter utterly devoid of common interest to ascertain whether and to what extent substantial numbers of working women are receiving wages "inadequate to supply the necessary cost of living and to maintain the worker in health." Restraint upon freedom of contract by women and children has been recognized as an appropriate exercise of the police power in numerous cases. The kind of constraint which may arise from making public facts and conclusions at the expense of the Commonwealth would involve other considerations if directed to affairs in which there could be no legitimate general interest directed to the rational promotion of the public health, order, morals and in a restricted sense of the common welfare.

Merely for the purpose of illustrating the extent of the public interest in matters involving primarily and chiefly private concerns, numerous decisions are pertinent.

Reference is made to these authorities solely to indicate the range of the public interest respecting matters of private relations, and not to intimate whether they afford any foundation for a compulsory minimum wage law. These decisions rest at bottom on the proposition that the public welfare in respect to health, morals and safety bears so close a relation to the subjects dealt with in the several statutes as to justify legislative regulation.

The present act may have had its origin in the belief that women and minors in some branches of industry, under the constraint of necessity to earn their living, were working for wages less than enough to provide them support in healthful surroundings as to food, clothing and home and under conditions suitable for the normal activity of the moral faculty. In its broad aspects this general subject is one having some relation to the welfare of the community. The ascertainment of the facts respecting this subject at a given time, and the making of recommendations for the remedy of evil conditions, if found to exist, by a temporary commission acting under the sanction of public authority, would be a lawful expenditure of public moneys. It does not seem to us unreasonable to contend that wages insufficient for the bare

essentials of the cost of support and the nourishment of the health of women laborers have such relation to the public morals, good order, and health that the dissemination of information upon the subject of such wages from time to time by a permanent commission is within the power of a Legislature clothed as is our General Court with full power and authority to make "all manner of wholesome and reasonable" statutes not repugnant to the Constitution. The circumstances that the commission further is directed to make recommendations as to wages to be paid does not add an element of compulsion in law in connection with all the other factors. The recommendation in the nature of things must correspond more or less closely to the facts found. The members of the public are free to decide from the facts stated and their own experience whether the conclusions of the commission are just and wise or oppressive and vain, and to act according to their own conceptions of their private advantage and the public welfare. It is not for us to pass upon the question whether such legislation is wise. Unless it can be said to bear no relation whatever to legitimate public interests or to be a palpable invasion of private right, liberty and property without constitutional warrant, the decision of the General Court as embodied in the statute must stand.

The natural and inalienable rights are secured to each member of society by Articles I, X, and XII of the Declaration of Rights of our Constitution to enjoy liberty, to acquire, possess and defend property and to seek and obtain safety and happiness, and to be protected by law in the exercise of these rights. Freedom of contract in a broad sense is a constitutional right. "Liberty" as used in the Fourteenth Amendment to the Constitution of the United States, said Mr. Justice Holmes, "embraces the right to be free in the enjoyment of one's faculties; 'to be free to use them in all lawful ways; to live and work where he will; to earn his livelihood by any lawful calling; to pursue any livelihood or avocation, and for that purpose to enter into all contracts that may be proper'." But these guarantees are subject to the police power. Without undertaking to define that power, it comprehends rational action by the legislative department for the protection of the public health, morals and good order. These guarantees do not go to the extent of protection against publicity respecting contracts with women and minors, which the consensus of opinion of the Commonwealth, as formulated in a statute requiring impartial investigation by a public board, declares wanting in affording to them necessary support. Assuming that these and other constitutional safeguards protect the individual in the enjoyment of privacy, they do not afford immunity against police regulations requiring knowledge touching subjects which may within reason be thought to promote the health, safety and morals of the community.

There are limits to the right of the public to inquire into private affairs. The coercion resulting from legislation, in form not com-

pulsory, may in practice be so severe as to leave no alternative save compliance. In such a case its validity would depend not upon its form but its substance. But it is not necessary to discuss limitations of this character, for the reason that the present statute does not according to its terms reach into that realm. There is nothing in the record to warrant the inference that such is its actual effect. The inducements held out by this act to employers to accept the recommendations of the commission in principle do not go beyond those of the workmen's compensation act, which abolished the defences of assumption of risk, contributory negligence, and the fellow-servant doctrine as to employers who do not become subscribers, but left those rules of law in force without the benefit of the employers' liability act as to employees who elect to rely upon their common law rights. Yet that act has been held valid as not depriving the employer or employee of property without due process of law, limiting unduly freedom of contract, or interfering with other constitutional rights.

As has been pointed out, the present statute does not impair liberty of contract. Absolute freedom to make any contract respecting wages is left untouched. Notwithstanding its terms, still "an employer has a right to engage all persons who are willing to work for him at such prices as may be mutually agreed upon; and persons employed or seeking employment have the corresponding right to enter into or remain in the employment of any person or corporation willing to employ them." The right of every man is undisturbed "to determine what branch of business he will pursue and to make his own contracts with whom he pleases and on the best terms he can."

There is no undue invasion of the right of privacy assuming that that is an element of the constitutional right to seek and obtain "safety and happiness."

The statute does not take property of the employer for the reasons already stated.

Since the statute is not compulsory either in form or effect, there is no ground for holding that it is invalid because not affording equal protection of the laws. Whatever might be said about certain provisions of the act in this regard, if it were mandatory, there is no occasion now to discuss that matter.

The analysis of the act already made demonstrates that it is not open to objection as an unconstitutional delegation of legislative power. In this respect the statute is well within the authority of numerous decisions. It is plain also that it does not confer judicial powers upon the commission. It follows that the statute does not violate Article XXX of the Bill of Rights.

There is no criminal element about the act so far as it concerns the employer. The facts which the commission is authorized to ascertain and the evidence which it is empowered to seek from employers cannot form the basis of a criminal proceeding, because no crime is

created and no prosecution is provided for. Revealing the information or answering the questions required by the statute cannot subject the employer to penalty or forfeiture, and does not expose him to imputation of crime. Therefore the constitutional prohibition against a subject being "compelled to accuse or furnish evidence against himself" is not violated. It follows that there is no foundation for the contention of the respondents that they are subjected to punishment without proper notice, or complaint, or hearing or trial by jury.

It is not necessary to consider the scope and validity of St. 1912, c. 7075, section 15 of the act, which purports to compel newspapers to publish notices and findings of the commission at its regular rates for space, and of section 16, which purports to exonerate the commission and publishers and proprietors of newspapers from liability for damages for such publication, except for wilful misrepresentation. Those sections are not involved on this record and are left entirely open for future consideration. Even if they should be found to transcend in any respect the power of the Legislature under the Constitution, they are quite separable from the rest of the act. It cannot be thought that the rest of the statute would not have been enacted without them, and therefore the constitutionality of the sections here assailed would not be affected.

The act as it has been interpreted does not seem to us to violate any provision of the Fourteenth Amendment to the United States Constitution. The reasons upon which this decision rests, as already stated, appear to us to make this conclusion clear. Holding ourselves strictly bound by the decisions of the United States Supreme Court upon which the respondents rely, none of them in our opinion are at variance with the result here reached.

The grounds upon which this decision is put make wholly unnecessary consideration of the question whether a mandatory minimum wage law would violate the provisions of our Constitution. They also render superfluous a prophecy whether such an act will be held by the United States Supreme Court to be contrary to the rights and liberties guaranteed by the Fourteenth Amendment of the United States Constitution.

Writ to issue.

APPENDIX No. 2.

MEMBERSHIP OF WAGE BOARDS IN SESSION IN 1918.

To the busy men and women who have generously devoted their time to public service on wage boards, the Commission makes grateful acknowledgment.

Following is a list of the members of the wage boards that were in session during the year:—

MUSLIN UNDERWEAR, PETTICOAT, APRON, KIMONO, WOMEN'S NECKWEAR AND CHILDREN'S CLOTHING WAGE BOARD.

Representing the Public.

Harrison F. Lyman, *Chairman*.

Willis P. Rowell.

Cornelia J. Cannon.

Representing the Employers.

Saul Andrews.

David L. Fine.

Ralph W. Morrill.

J. P. Morse.

Meyer Peyser.

Arthur F. Powers.

Representing the Employees.

Dorothy Chernoff.

Sarah Goodstein.

Samuel Jacobson.

Gertrude Popkin.

Kathryn J. Punch.

Stella Slater.

OFFICE AND OTHER BUILDING CLEANERS' WAGE BOARD.

Representing the Public.

Tam Deering, *Chairman*.

Elmer C. Potter.

Wenona O. Pinkham.

Representing the Employers.

William B. Baker.

Daniel F. Carew.

Robert E. L. Chapman.

Frank A. Ewart.

Louis W. Parent.

Walter Rose.

Representing the Employees.

Agnes Bonney.

Elizabeth Dominaitis.

Bridget Dunn.

Katherine Leary.

Margaret Masterson.

Nora Regan.

RETAIL MILLINERY WAGE BOARD.

*Representing the Public.*Joseph J. Tillinghast, *Chairman.**Representing the Employers.*

Albert A. Allendorf.

James F. Bacon.

Frank W. Belcher.

Representing the Employees.

Rose Amidanault.

Lena Lavagnino.

Jane M. Sylvester.

WHOLESALE MILLINERY WAGE BOARD.

*Representing the Public.*Judge Charles J. Brown, *Chairman.**Representing the Employers.*

Raphael Feins.

Edward E. Shannon.

Charles H. Whittier.

Representing the Employees.

Mabel M. Eastman.

Emily J. Granville.

Alma S. Palm.

APPENDIX No. 3.

ITEMIZED COST OF LIVING BUDGETS.

[As voted on by Massachusetts wage boards.]

	Brush Board (January, 1914).	Candy Board (Summer, 1914).	Laundry Board (Winter, 1915).	Women's Clothing Board (Spring, 1916).	Men's Clothing Board (Spring, 1917).	Men's Furnishings Board (Summer, 1917).	Muslin Underwear Board (Winter, 1918).	Retail Millinery Board (Spring, 1918).	Office Cleaners' Board (Spring, 1918).	Wholesale Millinery Board (Fall, 1918).
Board and lodging,	\$5 25	\$5 25	\$5 25	\$5 75	\$5 50	\$6 00	\$6 00	\$7 00	\$7 00	\$7 00
Clothing,	1 44	1 50	1 50	1 50	1 90	1 75	1 50	1 92	1 75	2 00
Laundry,	50	45	50	25	35	30	25	30	30	50
Car fares,	70	60	60	10	40	60	60	60	60	84
Doctor and dentist,	20	25	25	25	25	20	40	20	45	30
Church,	10	11	11	10	10	10	10	11	13	13
Newspapers and magazines,	16	11	16	18	15	15	-	11	11	18
Vacation,	19	20	20	25	25	35	-	35	25	40
Recreation,	17	20	20	25	25	-	-	25	20	25
Savings,	-	-	-	25	50	25	-	25	25	30
Incidentals,	-	-	-	10	20	50	60	25	35	25
Organization dues,	-	-	-	-	15	15	20	-	-	-
Insurance,	-	-	-	-	-	10	-	10	15	10
Self-improvement,	-	-	-	-	-	-	-	20	-	25
Total,	\$3 71	\$8 67¹	\$8 77	\$8 98	\$10 00	\$10 45	\$9 65	\$11 64	\$11 54	\$12 50

¹ \$8.75 was voted unanimously by the Candy Makers' Wage Board from the above budget as the necessary cost of living, allowing 8 cents extra for miscellaneous requirements.

APPENDIX No. 4.

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS UP TO JAN. 1, 1919.

KINDS OF WORK COVERED.	WORKERS AFFECTED.		Wage Rates.	Remarks.	Decree Effective.
	Class.	Age.			
Brush industry.	Experienced time workers.	Any.	\$0.155 an hour.	Piece rates also to yield at least \$0.155 an hour.	Aug. 15, 1914.
	Learners and apprentices—time workers.		65 per cent. of above (about \$0.10).	Time of apprenticeship not more than 1 year.	
	Experienced females of ordinary ability.	Any.	\$8 weekly.	To be deemed "experienced" after 1 year's apprenticeship if absences during that period have not been of unreasonable duration. For females of less than ordinary ability wage fixed by special license.	
Laundry.	Learners and apprentices: — (1) 9-12 months' experience. (2) 6-9 months' experience. (3) 3-6 months' experience. (4) Under 3 months' experience.		(1) \$7.50 weekly. (2) \$7 weekly. (3) \$6.50 weekly. (4) \$6 weekly.		Sept. 1, 1915.
	Experienced females of ordinary ability.	19 or over.	\$8.50 weekly.	As above. Extra or part-time workers to receive at least same scale of pay pro rata for time actually employed.	
	Learners and apprentices.	(1) 18 or over. (2) 17. (3) Less than 17.	(1) \$7 weekly. (2) \$6 weekly. (3) \$5 weekly.		
Retail stores.	Experienced females of ordinary ability.	19½ or over.	\$8.75 weekly.	To be deemed "experienced" after 1½ years' apprenticeship after reaching 18 if absences during that period have not been of unusual duration. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1917.
	Learners and apprentices.	(1) 18 or over. (2) Less than 18.	(1) \$7 weekly. (2) \$6 weekly.		
	Women's clothing factories (cloak, suit, skirt, dress, and waist shops).				

MINIMUM WAGE COMMISSION.

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS UP TO JAN. 1, 1919 — *Concluded.*

KINDS OF WORK COVERED.	WORKERS AFFECTED.		Wage Rates.	Remarks.	Decree Effective.
	Class.	Age.			
Men's clothing and raincoat factories.	Experienced females of ordinary ability.	18 or over.	\$9 weekly.	To be deemed "experienced" after 1 year's apprenticeship if absences during that period have not been of unreasonable duration. For females of less than ordinary ability wage fixed by special license.	Jan. 1, 1918.
	Learners and apprentices:— (1) 3-12 months' experience.	Any.	\$7 weekly.		
Men's furnishings factories (manufacture of men's and boys' shirts, overalls, and other workmen's garments, men's neckwear and other furnishings, and men's, women's and children's garters and suspenders).	Experienced females of ordinary ability.	Any.	\$9 weekly.	To be deemed "experienced" after 52 weeks' apprenticeship. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1918.
	Learners and apprentices:— (1) 26-52 weeks' experience. (2) 6-26 weeks' experience.	Any.	(1) \$8 weekly. (2) \$7 weekly.		
Muslin underwear, petticoat, apron, kimono, women's neckwear and children's clothing factories.	Experienced females of ordinary ability.	18 or over.	\$9 weekly.	To be deemed "experienced" after 52 weeks' apprenticeship, 26 weeks of which shall have been in the factory in which she is for the time being employed. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Aug. 1, 1918.
	Learners and apprentices:— (1) 26-52 weeks' experience. (2) 13-26 weeks' experience. (3) Less than 13 weeks' experience.	(1) 18 or over. (2) 18 or over. (3) Any.	(1) \$8 weekly. (2) \$7 weekly. (3) \$6 weekly.		

MINIMUM WAGE DECREES.

61

Retail millinery workrooms.

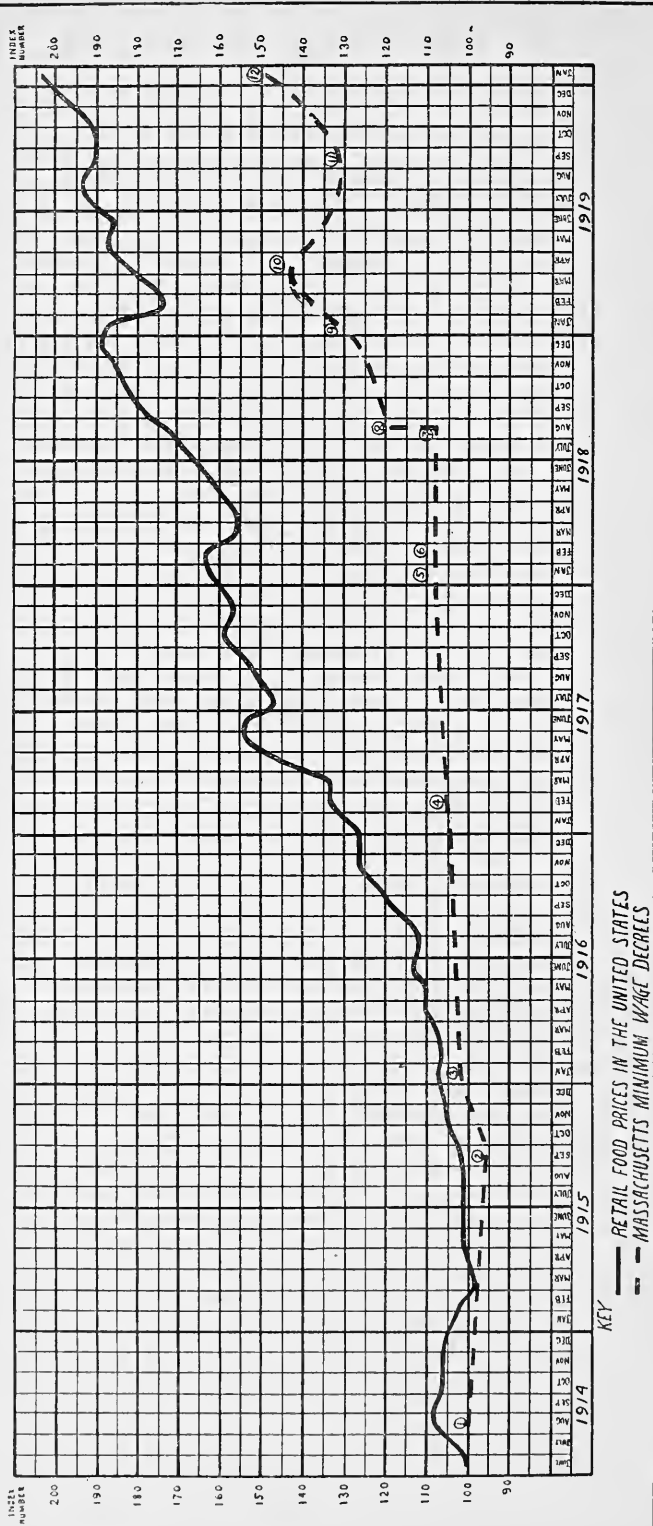
	Experienced females of ordinary ability.	19 or over.	\$10 weekly.	To be deemed "experienced" after 4 seasons' apprenticeship, including 16 weeks in fall seasons and 16 weeks in spring seasons. If apprentice enters trade at 15 or younger it is required that she have 12 weeks' experience in season preceding one in which \$10 minimum becomes effective. Twelve weeks shall constitute a season. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Aug. 1, 1918.
Wholesale millinery occupation.	Learners and apprentices:— (1) 3 seasons' experience. (2) 2 seasons' experience. (3) 1 season's experience. (4) Less than 1 season's experience.	(1) 18 or over. (2) 18 or over. (3) Any. (4) Any.	(1) \$7.50 weekly. (2) \$6 weekly. (3) \$4.50 weekly. (4) \$3 weekly.	To be deemed "experienced" after 4 seasons' apprenticeship, including 12 weeks in each of 2 spring seasons, and 12 weeks in each of 2 fall seasons, or, in case of those employees whose work is not of seasonal character, after two years. Twelve weeks shall constitute a season. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Jan. 1, 1919.
	Experienced females of ordinary ability. Learners and apprentices:— (1) 3 seasons' experience or 63 weeks. (2) 2 seasons' experience, or 42 weeks. (3) 1 season's experience, or 21 weeks. (4) Less than 1 season's experience, or 21 weeks.	18 or over. Any.	\$11 weekly. (1) \$9 weekly. (2) \$8 weekly. (3) \$7 weekly. (4) \$6 weekly.		







COMPARISON OF THE COURSE OF RETAIL FOOD PRICES IN THE UNITED STATES¹ WITH THE MASSACHUSETTS MINIMUM WAGE DECREES.

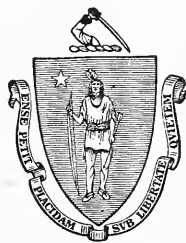


¹ As computed by the New York State Industrial Commission from figures issued by the United States Bureau of Labor Statistics.
² The decree provides for an hourly rate of .155 cents. The weekly rate given, \$8.37, is based on the maximum working hours (fifty-four) at the time the decree became effective.
 The present forty-eight hour maximum gives a weekly rate of \$7.44.

³ Hourly rate, 26 cents for day work, 30 cents for night work. The \$12 rate represents the weekly minimum desired by the wage board.

SEVENTH ANNUAL REPORT
OF THE
MINIMUM WAGE COMMISSION
OF
MASSACHUSETTS

FOR THE YEAR ENDING NOVEMBER 30, 1919



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CONTENTS.

	PAGE
Diagram,	Frontispiece
MEMBERS OF THE COMMISSION,	5
 REPORT OF THE COMMISSION:—	
Effect of the Consolidation Act,	7
Legislation enacted in 1919,	9
Summary of the Work of the Minimum Wage Commission for 1919, .	10
Outline of Activities,	10
Résumé of the Work of the Commission since its Establishment in July, 1913,	12
Summary,	12
Results of Investigations conducted by the Commission in 1919, .	13
Wages of Women employed in Corset Factories,	13
Wages of Women employed in Paper Box Factories,	19
Wages of Women employed in Knit Goods Factories,	22
Wages of Women employed in Loom Harness Factories,	25
Wages of Women employed in the Manufacture of Minor Lines of Confectionery and Food Preparations,	26
Results of Wage Board Activities,	31
Canning and Preserving Wage Board,	31
Candy Wage Board,	32
Corset Wage Board,	32
Men's Clothing and Raincoat Wage Board,	33
Knit Goods Wage Board,	34
Summary,	34
Enforcement of Wage Decrees,	35
Brush,	35
Laundry,	37
Retail Store,	37
Women's Clothing,	42
Men's Clothing and Raincoat,	44
Men's Furnishings,	44
Muslin Underwear,	45
Retail Millinery,	47
Wholesale Millinery,	49
Office and Other Building Cleaners,	51
Canning and Preserving,	52
Summary,	53
Outlook for 1920,	56
Wage Board Activities,	56
Revision of Rates,	56
Increases in Cost of Living,	56
Comparison of Massachusetts Rates with those in Effect in Other States,	57
Recent Developments in Minimum Wage Work,	58
Modification of Existing Legislation,	58
Value of Wage Board Work,	60
Recommendations,	61
Legislation,	61
Appropriation,	61

REPORT OF THE SECRETARY:—	PAGE
Investigations and inspections made by the Minimum Wage Commission in 1919,	63
Financial Statement,	65
APPENDIX No. 1:—	
Amendments to Minimum Wage Law enacted in 1919,	69
APPENDIX No. 2:—	
Chronology of Minimum Wage Legislation in Massachusetts, . .	72
APPENDIX No. 3:—	
Membership of Wage Boards in Session in 1919,	74
APPENDIX No. 4:—	
Itemized Cost of Living Budgets adopted by Massachusetts Wage Boards,	77
APPENDIX No. 5:—	
Estimate of the Increase in the Cost of Living since the Various Decrees were entered,	78
APPENDIX No. 6:—	
Minimum Wage Decrees established in Massachusetts to January 1, 1920,	79
APPENDIX No. 7:—	
Recent Minimum Wage Decrees in Effect in Other States and in Canadian Provinces,	84

TABLES.

TABLE I. — Average Weekly Earnings of 1,361 Women employed in 10 Corset Factories in Massachusetts: by Occupations,	15
TABLE II. — Potential Weekly Earnings of 809 Piece Workers in 4 Corset Factories in Massachusetts: by Establishments (Cumulative),	18
TABLE III. — Average Weekly Earnings of 1,054 Women employed in 16 Paper Box Factories in Massachusetts: by Occupations, . . .	20
TABLE IV. — Average Weekly Earnings of 344 Women employed in 3 Factories in Massachusetts manufacturing Knit Goods Other than Hosiery and Underwear: by Occupations,	23
TABLE V. — Average Weekly Earnings of 284 Adult Women employed in 10 Establishments engaged in the Manufacture of Minor Confectionery Products, and of 241 Adult Women employed in 23 Establishments engaged in the Manufacture of Food Preparations in Massachusetts: by Establishments (Cumulative), . .	28

MEMBERS OF THE COMMISSION.

CHARLES F. DUTCH, *Chairman.*

MABEL GILLESPIE.

ARTHUR C. COMINS.

ETHEL M. JOHNSON, *Executive Secretary.*

The Commonwealth of Massachusetts

REPORT.

To the Honorable the Senate and the House of Representatives in General Court assembled.

The Minimum Wage Commission of the Commonwealth of Massachusetts herewith respectfully submits its seventh annual report, which contains, in accordance with the provisions of the law, an account of its investigations and proceedings during the fiscal year ending November 30, 1919. The report embodies recommendations for such legislation and for such increases in the appropriation as will permit the work of the department to be conducted efficiently.

Following the Commission's report is that of the secretary, which summarizes the activities of the field and office force for this period, and gives a statement of the expenditures made by the department from the appropriation granted by the General Court for the fiscal year. Appended is a summary of the provisions of the wage decrees entered by the Commission under the authority of the law to January 1, 1920, an outline of the cost of living budgets approved by the various wage boards to date, and a list of the members of wage boards in session during the present year, together with the text of the amendments to the minimum wage law enacted by the General Court in 1919, and other data pertaining to the work of the Commission.

EFFECT OF THE CONSOLIDATION ACT.

The present report represents the final one by the Minimum Wage Commission; since the Commission, as such, is abolished by the act consolidating the various State boards,

commissions, and departments, chapter 350 of the General Acts of 1919, which becomes effective December 1 of the present year. By this act the work of the Commission is taken over by the new Department of Labor and Industries, the executive and quasi-judicial functions being assumed by a board of three Associate Commissioners who also assume the functions of the Board of Conciliation and Arbitration, and are to be known by that name, while the direct administrative duties are delegated to the Commissioner of Labor and Industries, the administrative and executive head of the new department. The Commissioner will initiate investigations and inspections. The Associate Commissioners will conduct hearings, establish wage boards, enter decrees, and issue special licenses.

The act authorizes the Commissioner, with the approval of the Associate Commissioners, to determine what divisions shall be organized. The establishment of a separate division to carry on the minimum wage activities is therefore a matter to be determined by the new board.

Whatever plan is adopted, it is recommended that provision be made for continuing intact the essential features of the minimum wage work, and for protecting, so far as possible, the identity and individuality of that work.

There are practical reasons for such recommendations. The work is distinctly different from that of the other labor boards and commissions with which it is joined. It is concerned directly with a special group, — the unskilled, unorganized women and child workers in the State. The wage boards through which it functions involve distinct problems requiring a certain specialization in their treatment.

The change soon to be effected places Massachusetts in line with States like New York, Pennsylvania, and Wisconsin, in centralizing the control of the various boards dealing with labor problems. Such centralization is unquestionably desirable in the interest of economy and efficiency. At the same time, it is important that sufficient specialization should be possible to permit the normal development of distinct branches of the work, such as the minimum wage. The reorganization act is sufficiently flexible to secure this result.

LEGISLATION ENACTED IN 1919.

Legislation affecting minimum wage work enacted by the General Court during the past year includes, in addition to the consolidation act¹ previously mentioned, three amendments² to the minimum wage law. The first authorizes the Commission to fill vacancies that may arise on a wage board. The second and third, respectively, make it mandatory for employers, when requested, to post certain notices, and to keep records of the hours worked by their women employees. These measures represent all of the recommendations made by the Commission for legislative action this year. Although these amendments do not extend the scope of the existing law, they materially strengthen it, and make it possible for the work to be carried on with less difficulty than in the past.

The first amendment³ is intended to meet legitimate emergencies and to prevent interruption of the Commission's work through blocking the action of its wage boards. According to an opinion given by the Attorney-General, the law as originally enacted made no provision for filling a vacancy caused by the resignation of a wage board member. Consequently, in such an event proceedings would be brought to a standstill. The authority granted under this act has proved of material assistance in enabling the Commission to complete the membership of reconvened boards.

The second amendment,⁴ requiring employers, when requested by the Commission, to post notices of hearings, of nominations for wage boards, and of wage board decrees that apply to their employees, supersedes an act passed in 1915 regarding the same subject. The new act makes the requirements more specific, and adds as penalty for non-compliance a fine of \$5 to \$50 for each offence.

The third amendment⁵ provides that in addition to the records which employers are now required to keep, showing names, addresses, occupations, and weekly wage payments for every woman and minor in their employ, they shall, when

¹ Chapter 350 of the General Acts of 1919. In effect December 1, 1919.

² Text of the amendments is given in Appendix No. 1.

³ Chapter 72 of the General Acts of 1919. In effect July 2, 1919.

⁴ Chapter 77 of the General Acts of 1919. In effect July 3, 1919.

⁵ Chapter 76 of the General Acts of 1919. In effect July 3, 1919.

so requested¹ by the Commission, keep for a specified period not exceeding six months a record giving the hours worked each week by such women and minors. This amendment carries a penalty clause providing a fine of not less than \$5 and not more than \$50 for failure to comply. As this penalty applies not only to the keeping of records of hours, but also to all of the other records, it adds substantial support to the original law.

SUMMARY OF THE WORK OF THE MINIMUM WAGE COMMISSION FOR 1919.

The major part of the Commission's work during the past year has consisted in carrying on activities started in previous years and suspended either because of legal complications or other difficulties. After the decision² of the Supreme Court upholding the constitutionality of the minimum wage law, the Commission voted to resume the program of interrupted work. This included a thorough inspection under the laundry and retail store decrees, and a reinvestigation of the candy, corset, and paper box industries to determine whether wage boards were required for these respective occupations. In addition, it was agreed to make a second inquiry into the wages of women employed in knit goods factories. A summary of the activities conducted this year, and a résumé of the more important work of the Commission since its organization, follows.

OUTLINE OF ACTIVITIES.

Publications. — Reports of the following investigations made by the Commission have been published in 1919. These are: —

Supplementary Report on the Wages of Women in Candy Factories in Massachusetts, Bulletin No. 18.

Wages of Women employed in Canning and Preserving Establishments in Massachusetts, Bulletin No. 19.

Report on the Wages of Women in the Millinery Industry in Massachusetts, Bulletin No. 20.

In addition, the Commission has issued a Handbook of Information for Wage Board Members.

¹ It is the policy of the Commission to keep its requests as limited as the interests of an industry will permit.

² *Holcombe v. Creamer*, 231 Mass. 99.

Investigations. — During the current year the Commission has investigated wage conditions of women in the occupations listed below.

Paper box factories (second investigation by Commission).
 Corset factories (second investigation by Commission).
 Hosiery and knit goods (second investigation by Commission).
 Loom harness factories.
 Minor lines of confectionery and food preparations and flavoring extracts.

Wage Boards. — Wage boards for the following occupations have been authorized: —

Canning and preserving (work completed).
 Candy making (second board, work completed).
 Corset (second board, in session).
 Knit goods (in session).
 Minor lines of confectionery and food preparations (in process of formation).
 Paper box (second board, in process of formation).

Wage Boards reconvened. — Acting upon petitions from employees for revision of rates to meet the increased cost of living, the Commission has reconvened the Men's Clothing and Raincoat Wage Board, and is reconvening the boards for the women's clothing industry, and for the men's furnishings occupation.

Decrees entered. — After public hearings on the recommendations of the wage boards, decrees fixing minimum rates for women and girls in the respective occupations represented have been entered by the Commission as follows: —

For office and other building cleaners, providing 30 cents an hour for night work and 26 cents an hour for day work. Effective April 1, 1919.

For canning and preserving establishments, providing a minimum rate of \$11. Effective September 1, 1919.

For candy factories, providing a minimum rate of \$12.50. Effective January 1, 1920.

Inspections. — Inspections to determine compliance with the Commission's recommendations have been made in all the occupations for which decrees are effective. These comprise: —

Occupations.

Brush.	Muslin underwear.
Canning and preserving.	Office buildings.
Laundry.	Retail millinery.
Men's clothing and raincoat.	Retail stores.
Men's furnishings.	Women's clothing.
Wholesale millinery.	

Results of Decrees.—Very few cases of non-compliance were found in any of the inspections, and all of these have been adjusted.

RÉSUMÉ¹ OF THE WORK OF THE COMMISSION SINCE ITS ESTABLISHMENT IN JULY, 1913.

During the six years that the Commission has been in existence, wage investigations have been conducted in 23 occupations employing women and girls. In 4 of these a second investigation has been made. For 16 of these occupations, wage boards have been authorized. Of these boards, 2 are in process of formation, and 2 are now in session. Three boards are the second to be formed for their respective occupations. Three other boards have been or are being reconvened. Wage decrees based on the determinations of the boards fixing minimum rates for women and girls have been entered for 12² occupations. The determinations of another board have been provisionally approved. Inspections to ascertain compliance with the decrees have been made in every occupation in which wage determinations are in effect. Results of these inspections show substantially full compliance with the recommendations of the Commission. They also indicate that a considerable proportion of the women and girls in the occupations covered have received increased wages in consequence of the decrees.

SUMMARY.

These are concrete accomplishments. Some of the less tangible results are possibly of greater value. Chief among these are the co-operation secured from employers in carrying

¹ A more detailed account of the work appears in the sixth annual report.

² Since the close of the period covered by the report, two additional decrees have been entered.

out the provisions of the Commission's decrees, and the educational work involved in the adjustment of inspection cases and in the conduct of wage board activities. The Commission has endeavored to win the confidence and support of all affected by the law by executing it in an absolutely fair and impartial manner in the interest of the Commonwealth. Some of the duties imposed by law involve serious difficulties. This is true of the inspections to determine compliance with wage recommendations. It has been the purpose of the Commission to have the inspections conducted thoroughly, and at the same time in such a way as to cause the minimum of friction. This has required patience, tact, and courtesy on the part of the members of the inspecting staff, and the successful results are due in large measure to their efforts. Much time has been devoted to the adjustment of cases of non-compliance. Their settlement without the use of publicity or of legal action attests the value of the educational policy of the Commission and the soundness of its working basis.

RESULTS OF INVESTIGATIONS CONDUCTED BY THE COMMISSION IN 1919.

During the year just ended the Commission has investigated wage conditions of women and girls in the following industries: corset, paper box, knit goods, loom harness making, minor lines of confectionery and food preparations, including flavoring extracts. Of these, corset, paper box, and knit goods represent the second investigations made by the Commission, and form part of the program of unfinished work which it was agreed to resume after the court decision¹ upholding the constitutionality of the law. A summary of the results of these investigations follows: —

Wages of Women employed in Corset Factories.

One of the first investigations made by the Commission was that of wage conditions of women employed in corset factories in Massachusetts. As a result of this investigation, which was conducted in the fall of 1913, a wage board was

¹ Holcombe v. Creamer, 231 Mass. 99.

formed for the occupation. The resignation of a member of the board in the fall of 1915 caused the proceedings to be suspended, as the Commission did not at that time have the authority to fill vacancies¹ arising on its wage boards. No further action in the matter was taken during the three-year term for which the board was appointed. This term expired in February, 1918. A second investigation of wage conditions in the industry was made in the spring of 1919 to determine whether it was necessary to establish a new board for the occupation. The field work was started in May and completed the following month. Pay-roll records for women employees were secured from 10 factories, including the 8 represented in the previous study. These constitute nearly nine-tenths of the industry in this State. In each of these 10 establishments a transcript of the pay roll for the four months, January through April, 1919, was taken. Wage records were secured for 1,623 women and girls. Of these records 1,361 were used in tabulating average weekly earnings.

Average weekly earnings by occupations and potential earnings by establishments for piece workers for whom records of hours were available are given in the tables following. Table I indicates that approximately two-thirds (67.1 per cent) of the women have actual earnings averaging less than \$12 a week. Table II shows that two-fifths (39.9 per cent) would, even under the most favorable conditions, earn less than \$12 a week for full-time employment. In connection with these figures it should be remembered that the corset industry was seriously affected by war conditions; that the period covered by the study was one of transition from a war to a peace basis; and that owing to temporary adjustments in piece rates and bonus systems a somewhat unfavorable picture of the wage situation is presented.

¹ This authority is given by General Acts of 1919, chapter 72.

TABLE I. — *Average Weekly Earnings of 1,361 Women employed in 10 Corset Factories in Massachusetts: by Occupations.*
 [Based on pay-roll records for the period January through April, 1919.]

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS EARNING —												Total.
	Under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
JOINING AND SEAMING: —													173
Number,	4	2	9	25	14	20	8	18	23	15	16	19	100
Per cent,	2.3	1.2	5.2	14.4	8.1	11.6	4.6	10.4	13.3	8.7	9.2	11.0	
STRIPPING: —													115
Number,	—	1	7	10	14	11	22	12	17	6	8	7	100
Per cent,	—	.9	6.1	8.7	12.2	9.6	19.1	10.4	14.8	5.2	6.9	6.1	
EXAMINING: —													111
Number,	4	5	6	10	11	16	12	8	11	14	5	9	100
Per cent,	3.6	4.5	5.4	9.0	9.9	14.5	10.8	7.2	9.9	12.6	4.5	8.1	
BINDING: —													81
Number,	2	3	6	7	8	5	6	8	3	9	10	14	100
Per cent,	2.5	3.7	7.4	8.6	9.9	6.2	7.4	9.9	3.7	11.1	12.3	17.3	
BONING: —													80
Number,	18	16	9	5	5	9	8	2	5	1	2	—	100
Per cent,	22.5	20.0	11.3	6.2	6.2	11.3	10.0	2.5	6.2	1.3	2.5	—	
STEEL STITCHING AND FRONT SEAMING: —													64
Number,	1	1	5	7	4	11	8	4	3	4	2	14	100
Per cent,	1.6	1.6	7.8	10.9	6.2	17.2	12.5	6.3	4.7	6.2	3.1	21.9	
FABRIC, CLOTHING: —													56
Number,	1	1	—	3	4	8	1	12	6	4	7	9	100
Per cent,	1.8	1.8	—	5.4	7.1	14.3	1.8	21.4	10.7	7.1	12.5	16.1	

TABLE I. — *Average Weekly Earnings of 1,361 Women employed in 10 Corset Factories in Massachusetts: by Occupations* — Continued.

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS EARNING —												Total.
	Under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
SIDE STEEL: —													
Number,	3	1	4	6	1	4	7	9	4	2	5	3	49
Per cent,	6.1	2.0	8.2	12.2	2.0	8.2	14.3	18.4	8.2	4.1	10.2	6.1	100
STEEL SETTING: —													
Number,	5	5	5	12	3	5	6	4	1	—	—	3	49
Per cent,	10.2	10.2	10.2	24.5	6.1	10.2	12.3	8.2	2.0	—	—	6.1	100
FLOSSING: —													
Number,	—	—	—	2	3	1	8	8	8	7	8	3	48
Per cent,	—	—	—	4.2	6.2	2.1	16.6	16.7	16.7	14.6	16.7	6.2	100
HAND SEWING: —													
Number,	3	4	4	6	6	9	5	2	2	1	1	—	43
Per cent,	7.0	9.3	9.3	14.0	14.0	20.9	11.6	4.6	4.7	2.3	2.3	—	100
IRONING: —													
Number,	—	1	—	2	1	—	3	3	6	4	3	18	41
Per cent,	—	2.4	—	4.9	2.5	—	7.3	7.3	14.6	9.8	7.3	43.9	100
BACK STRIPPING: —													
Number,	1	—	—	2	—	4	2	7	6	1	4	7	34
Per cent,	2.9	—	—	5.9	—	11.8	5.9	20.6	17.6	2.9	11.8	20.6	100
LACE STITCHING: —													
Number,	1	—	2	3	2	6	4	2	1	4	3	4	32
Per cent,	3.1	—	6.3	9.3	6.3	18.8	12.5	6.3	3.1	12.5	9.3	12.5	100

TABLE II. — *Potential Weekly Earnings of 809 Piece Workers in 4 Corset Factories in Massachusetts; by Establishments (Cumulative).*

[Estimated from the average weekly earnings of workers for whom records for hours were available.]

ESTABLISHMENTS.		PER CENT OF WORKERS WITH POTENTIAL EARNINGS OF —											
		Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	Under \$13.	Under \$14.	Under \$15.	\$15 and over.
No. 1.	. . . . .	.4	1.4	3.7	6.1	10.3	17.8	27.5	35.5	43.1	52.0	61.9	38.1
No. 2.	. . . . .	—	1.0	1.0	1.9	6.7	10.6	19.2	29.8	37.5	51.9	61.5	38.5
No. 3.	. . . . .	1.5	4.4	16.2	25.0	33.8	42.6	51.5	60.3	67.6	75.0	80.9	19.1
No. 7.	. . . . .	2.6	3.9	15.8	22.4	34.2	51.3	59.2	68.4	69.7	76.3	85.5	14.5
Total,	. . . . .	.6	1.9	5.6	8.7	14.1	22.1	31.4	39.9	47.0	56.2	65.6	34.4

NOTE. — Records of hours were not available for a representative number of piece workers in establishments Nos. 4, 5, 6, 8, 9, and 10.

Wages of Women employed in Paper Box Factories.

An inquiry into the wages of women employed in paper box factories was made by the Commission in the early part of 1915, as a result of which a wage board was established. No meetings were held as the representatives of the employers, after being duly appointed, declined to proceed with the work of the board until the constitutionality of the minimum wage law should be decided. After the court decision,¹ a second investigation of the paper box industry was undertaken by the Commission. The field work was started in February, 1919, and completed the following March. This investigation is based on pay-roll records from 16 of the 24 establishments included in the former study, and covers the four-month period, October, 1918, through January, 1919. Wage records were secured for 1,301 women and girls. Of these records 1,054 were available for tabulation. Average weekly earnings for this group are shown in Table III following. This gives nearly nine-tenths (89.3 per cent) and seven-tenths (68.2 per cent), respectively, earning under \$15 and under \$12 a week. As in the corset industry, a large majority of the workers, approximately eight-tenths, are on piece rates. Potential earnings of piece workers for full-time employment, computed where records of hours were available, indicate that the greater part of the women would earn less than \$15 for a full week's work, and nearly one-fourth less than \$12.

A somewhat more favorable picture of wage conditions is given in returns submitted by the New England division of the National Paper Box Manufacturers Association. These show earnings of 1,685 women and girls employed in 47 paper box factories in Massachusetts during the last pay-roll week in May, 1919. Even here, considering the five months intervening, the proportion of women earning less than \$15 and less than \$12 a week (82.8 per cent and 61.2 per cent, respectively) is not materially different from that given by the Commission's investigation. The results of both investigations indicate little actual improvement in the wage situation since 1914.

¹ Holcombe v. Creamer, 231 Mass. 99.

MINIMUM WAGE COMMISSION.

TABLE III. — *Average Weekly Earnings of 1,054 Women employed in 16 Paper Box Factories in Massachusetts: by Occupations.*
 [Based on pay-roll records for the period October, 1918, through January, 1919.]

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS EARNING —												Total.
	Under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
HELPING:—													
Number,	27	12	20	37	44	17	17	4	6	4	4	8	200
Per cent,	13.5	6.0	10.0	18.5	22.0	8.5	8.5	2.0	3.0	2.0	2.0	4.0	100
BENCH WORK:—													
Number,	2	6	13	21	15	13	29	20	20	14	12	29	194
Per cent,	1.0	3.1	6.7	10.8	7.8	6.7	15.0	10.3	10.3	7.2	6.2	14.9	100
STRIPPING:—													
Number,	4	—	7	9	13	7	9	19	22	11	9	17	127
Per cent,	3.1	—	5.5	7.1	10.2	5.5	7.1	15.0	17.3	8.7	7.1	13.4	100
GLUING OFF:—													
Number,	7	4	4	12	16	19	6	9	5	3	2	—	87
Per cent,	8.0	4.6	4.6	13.8	18.4	21.8	6.9	10.3	5.8	3.5	2.3	—	100
MACHINE COVERING:—													
Number,	1	—	3	4	8	7	7	7	9	8	8	14	76
Per cent,	1.3	—	4.0	5.3	10.5	9.2	9.2	9.2	11.9	10.5	10.5	18.4	100
CLOSING AND INSPECTING:—													
Number,	2	—	12	12	5	5	8	4	2	1	3	2	56
Per cent,	3.6	—	21.4	21.4	8.9	8.9	14.3	7.1	3.6	1.8	5.4	3.6	100
BUNDLING AND PACKING:—													
Number,	2	4	5	2	—	3	2	3	5	4	2	8	40
Per cent,	5.0	10.0	12.5	5.0	—	7.5	5.0	7.5	12.5	10.0	5.0	20.0	100

RESULTS OF INVESTIGATIONS.

21

STAYING:— Number, Per cent,	1 2.7	1 2.7	—	2 5.4	4 10.8	3 8.1	4 10.8	6 16.2	7 19.0	4 10.8	3 8.1	37 100
HAND FOLDING:— Number, Per cent,	2 5.6	1 2.8	—	4 11.1	5 13.9	7 19.4	3 8.3	1 2.8	1 2.8	4 11.1	4 11.1	36 100
LABELING:— Number, Per cent,	—	—	3 9.4	4 12.5	2 6.2	3 9.4	2 6.2	7 21.9	3 9.4	1 3.1	5 15.6	32 100
TOPPING:— Number, Per cent,	—	1 4.0	—	1 4.0	1 4.0	5 20.0	2 8.0	6 24.0	1 4.0	3 12.0	4 16.0	25 100
CUTTING:— Number, Per cent,	—	—	1 4.5	1 4.6	1 4.6	3 13.6	—	1 4.6	3 13.6	3 13.6	6 27.3	22 100
TURNING-IN AND LACING:— Number, Per cent,	—	1 6.7	—	—	2 13.3	3 20.0	4 26.7	—	—	1 6.7	—	15 100
PUNCHING:— Number, Per cent,	1 8.3	—	—	1 8.4	—	—	—	4 33.3	—	1 8.4	4 33.3	12 100
MISCELLANEOUS:— Number, Per cent,	7 7.4	4 4.2	8 8.4	8 8.4	13 13.7	12 12.6	11 11.6	1 1.1	4 4.2	6 6.3	9 9.5	95 100
Total:— Number, Per cent,	56 5.3	34 3.2	76 7.2	118 11.2	127 12.1	100 9.5	93 8.8	95 9.0	64 6.1	63 6.0	113 10.7	1,054 100
Cumulative total:— Per cent,	5.3	8.5	15.7	26.9	39.0	48.5	59.4	77.2	83.3	89.3	10.7	

Wages of Women employed in Knit Goods Factories.

A study of the wages of women employed in factories manufacturing sweaters and miscellaneous knit goods was made in the spring of 1919. An earlier investigation of the knit goods industry covering all branches of the occupation was made by the Commission during the fall of 1915. This indicated a somewhat less favorable wage situation in the sweater branch than in the hosiery and underwear branches. No action was taken at that time regarding the establishment of a wage board. The second investigation was intended to cover all lines of knit goods. As the first returns, however, pointed to the same variations found at the time of the previous study, indicating that the level of rates in staple lines of hosiery and underwear was above that in the other lines, the major part of the investigation was confined to an inquiry into the wages paid to women in the manufacture of knit goods other than hosiery and underwear. The field work was started in June, 1919, and completed in July. A transcript covering the four months' period, February through May, 1919, was taken from the pay rolls of 8 factories engaged in the manufacture of sweaters, knit athletic goods, and various specialty lines. All of these were included in the former study. Pay-roll records were secured for 501 women and girls. Of these records 344 were available for tabulation. Average weekly earnings for this group are given in Table IV, following. This shows more than two-thirds of the women earning less than \$12 a week. Of the adult women, those eighteen years of age and over, one-half were earning less than \$12; and practically the same proportion of women with one or more year's experience in the occupation were receiving less than this amount. Approximately one-half of the women in this branch of the occupation are paid on a time-rate basis. Of these women, more than one-half received less than \$12 a week for full-time employment.

TABLE IV. — *Average Weekly Earnings of 344 Women employed in 8 Factories in Massachusetts manufacturing Knit Goods Other than Hosiery and Underwear: by Occupations.*

[Based on pay-roll records for the period February through May, 1919.]

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS EARNING —												Total.
	Under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
MACHINE SEAMING AND FINISHING: —													
Number,	3	2	3	8	12	8	17	15	12	14	7	12	113
Per cent,	2.7	1.8	2.6	7.1	10.6	7.1	15.0	13.3	10.6	12.4	6.2	10.6	100
WINDING: —													
Number,	1	1	5	1	8	5	8	8	7	2	6	12	64
Per cent,	1.6	1.6	7.8	1.6	12.5	7.8	12.5	12.5	10.9	3.1	9.4	18.7	100
HAND FINISHING: —													
Number,	3	2	2	5	6	6	4	1	3	—	—	8	40
Per cent,	7.5	5.0	5.0	12.5	15.0	15.0	10.0	2.5	7.5	—	—	20.0	100
MENDING: —													
Number,	2	3	3	4	—	4	3	2	4	4	—	2	31
Per cent,	6.5	9.7	9.7	12.9	—	12.9	9.7	6.4	12.9	12.9	—	6.4	100
KNITTING: —													
Number,	1	3	3	—	5	1	3	3	2	6	1	—	28
Per cent,	3.6	10.7	10.7	—	17.9	3.6	10.7	10.7	7.1	21.4	3.6	—	100
INSPECTING: —													
Number,	—	—	2	4	1	6	—	2	1	2	—	—	18
Per cent,	—	—	11.1	22.2	5.6	33.3	—	11.1	5.6	11.1	—	—	100

MINIMUM WAGE COMMISSION.

TABLE IV. — Average Weekly Earnings of 344 Women employed in 8 Factories in Massachusetts manufacturing Knit Goods Other than Hosiery and Underwear: by Occupations — Concluded.

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS EARNING —												Total.
	Under \$5.	\$5 and under \$6.	\$6 and under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
FOLDING AND BOXING: —													
Number,	1	1	2	2	1	—	5	1	—	1	—	—	14
Per cent,	7.1	7.2	14.3	14.3	7.1	—	35.7	7.2	—	7.1	—	—	100
LOOPING: —													
Number,	—	1	1	6	—	—	—	—	2	—	—	—	10
Per cent,	—	10.0	10.0	60.0	—	—	—	—	20.0	—	—	—	100
MISCELLANEOUS: —													
Number,	2	2	5	2	4	3	2	1	2	2	1	—	26
Per cent,	7.7	7.7	19.2	7.7	15.4	11.5	7.7	3.9	7.7	7.7	3.8	—	100
Total: —													
Number,	13	15	26	32	37	33	42	33	33	31	15	34	344
Per cent,	3.8	4.4	7.5	9.3	10.7	9.6	12.2	9.6	9.6	9.0	4.4	9.9	100
Cumulative total: —													
Per cent,	3.8	8.1	15.7	25.0	35.8	45.3	57.6	67.2	76.7	85.8	90.1	9.9	

Wages of Women employed in Loom Harness Factories.

In July, 1919, agents of the Commission made an investigation into the wages paid to women and girls employed in loom harness factories in Massachusetts. While in respect to numbers employed, this is a minor occupation, it is of distinct interest because of its relation to the textile industry, and because this State supplies not only the greater part of the loom harnesses used in this country but also exports to the Orient. As a subsidiary to the textile factories, the harness establishments reflect conditions in that trade. The level of wages, however, is considerably lower. Over one-half of the employees are women. Their work is largely of unskilled or semi-skilled nature. The Commission's study included all of the loom harness establishments in the State, 4 in number. In each of these a transcript of the pay-roll for one week in July was taken. Wage data available for tabulation were secured for 139 women. Actual earnings by occupations for this group are given below. More than one-fourth (26.6 per cent) of the women employed were receiving under \$9 a week; approximately two-fifths (41.0 per cent) under \$12, while almost the same number (37.4 per cent) received \$15 a week or over. The somewhat anomalous situation with respect to earnings existing in the same occupational groups is due to a striking variation in wage conditions in the different establishments.

MINIMUM WAGE COMMISSION.

Weekly Earnings of 139 Women employed in 4 Loom Harness Establishments in Massachusetts: By Occupations.

[Based on pay-roll records for one week in July, 1919.]

OCCUPATIONS.	NUMBER OF WORKERS EARNING —							Total.
	Under \$5.	\$5 and under \$7.	\$7 and under \$9.	\$9 and under \$11.	\$11 and under \$13.	\$13 and under \$15.	\$15 and over.	
Knitting,	1	1	2	5	7	18	24	58
Mending,	5	1	5	7	1	1	10	30
Picking,	8	5	2	2	1	1	11	30
Equipping,	—	1	2	1	—	2	5	11
Miscellaneous,	2	—	2	1	2	1	2	10
Total,	16	8	13	16	11	23	52	139
Per cent,	11.5	5.8	9.4	11.5	7.9	16.5	37.4	100
Cumulative total,	16	24	37	53	64	87	52	
Per cent,	11.5	17.3	26.6	38.1	46.0	62.6	37.4	

Although the wage situation would seem to warrant a minimum rate, it was the feeling of the Commission that, in view of the small number of employees involved, the expenditure for a wage board was more needed in other occupations. Consequently action in this matter was deferred.

Wages of Women employed in the Manufacture of Minor Lines of Confectionery and Food Preparations.

An investigation into the wages of women employed in the manufacture of minor lines of confectionery and food preparations was made by the Commission in October and November, 1919. Agents of the Commission visited 91 establishments located in 25 cities and towns in the Commonwealth. Pay-roll records available for tabulation were secured from 24 food preparation firms, including establishments manufacturing flavoring extracts, confectioners' supplies and soda-fountain supplies, and miscellaneous food products, such as macaroni, potato chips, peanut butter, maple syrup, prepared flour, and gelatine; and from 11 firms representing minor lines of confectionery, including establishments preparing blanched and salted nuts, nut brittle, stuffed fruits, pop corn cake and balls, chewing gum, and

similar products. These investigations supplement the former studies of the candy¹ and canning and preserving² industries.

The investigation covers a four months' period, — in the case of minor lines of confectionery, June through September, 1919; and in the case of food preparations, July through October, 1919. Pay-roll records were secured for 861 women in the two groups of establishments, — 476 representing minor confectionery, and 385 representing food preparations. Of these records, 314 and 287, respectively, were available for tabulation.

Average weekly earnings for adult women with totals for all female employees are shown in Table V, (a) and (b). In minor confectionery establishments four-fifths (80.6 per cent) of the adult women, and practically the same proportion of the entire group of women and girls, received less than \$12 a week; in food preparation establishments nearly three-fifths (59.9 per cent) of the adult women, and slightly more than three-fifths (62.4 per cent) of the entire group, received less than \$12 a week. More than one-half of the women in food preparation establishments, and approximately one-fourth of those in minor lines of confectionery, are paid on a time-rate basis. In food preparation establishments two-fifths (40.1 per cent) of the adult women, and nearly one-half (44.8 per cent) of all women and girls, were scheduled to receive less than \$12 a week, while in minor confectionery establishments the corresponding proportions are two-thirds and seven-tenths, respectively.

The close correspondence, both in rates and earnings, between the age groups indicates that in neither branch of the occupation is there intimate connection between age and earning power. The wage situation appears somewhat more favorable in the food preparation branch than in minor confectionery. In both, however, the level is considerably below that set by the wage boards recently in session as the minimum required to enable a self-dependent woman to meet the cost of living.

¹ Supplementary Report on the Wages of Women in Candy Factories in Massachusetts, January, 1919.

² Wages of Women employed in Canning and Preserving Establishments in Massachusetts, March, 1919.

TABLE V. — Average Weekly Earnings of 284 Adult Women employed in 10 Establishments engaged in the Manufacture of Minor Confectionery Products and of 241 Adult Women employed in 23 Establishments engaged in the Manufacture of Food Preparations in Massachusetts; by Establishments (Cumulative).

(a) *Minor Confectionery.*

[Based on pay-roll records for the period June through September, 1919.]

ESTABLISHMENTS.	PER CENT OF WORKERS EARNING —												
	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	Under \$13.	Under \$14.	Under \$15.	\$15 and over.	
No. 1.	3.2	14.0	21.0	33.3	51.6	61.8	73.7	79.6	90.9	95.2	95.7	4.3	
No. 2.	—	2.0	4.0	18.0	44.0	56.0	66.0	82.0	88.0	98.0	98.0	2.0	
No. 3.	—	—	18.2	18.2	72.7	81.8	100.0	100.0	100.0	100.0	100.0	—	
No. 4.	—	—	—	—	15.4	46.2	100.0	100.0	100.0	100.0	100.0	—	
No. 5.	—	—	—	—	—	—	22.2	44.4	44.4	66.7	77.8	22.2	
No. 6.	—	—	—	—	—	20.0	40.0	80.0	80.0	100.0	100.0	—	
No. 7.	50.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	100.0	—	
No. 8.	—	—	—	33.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	—	
No. 10.	—	—	—	—	—	—	—	100.0	100.0	100.0	100.0	—	
No. 11.	—	—	—	—	—	—	—	—	—	—	—	100.0	
Total,	2.8	10.6	16.3	27.2	47.3	58.3	72.1	80.6	89.0	94.7	95.8	4.2	

(b) *Food Preparations.*

[Based on pay-roll records for the period July through October, 1919.]

[illegible]

TABLE V. — *Average Weekly Earnings of 284 Adult Women employed in 10 Establishments engaged in the Manufacture of Minor Confectionery Products, and of 241 Adult Women employed in 23 Establishments engaged in the Manufacture of Food Preparations in Massachusetts; by Establishments (Cumulative) — Concluded.*

(b) *Food Preparations — Concluded.*

ESTABLISHMENTS.	PER CENT OF WORKERS EARNING —										
	Under \$5.	Under \$6.	Under \$7.	Under \$8.	Under \$9.	Under \$10.	Under \$11.	Under \$12.	Under \$13.	Under \$14.	Under \$15. \$15 and over.
No. 20,	—	—	—	—	—	—	—	—	100.0	100.0	—
No. 21,	—	—	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	—
No. 22,	—	—	—	—	—	—	—	—	—	—	100.0
No. 23,	—	—	—	—	—	100.0	100.0	100.0	100.0	100.0	—
No. 24,	—	—	—	—	—	—	—	—	100.0	100.0	—
Total,	2.5	4.2	8.4	14.8	26.2	34.6	45.1	59.9	72.2	82.7	13.1
Total of All Establishments,	2.7	7.7	12.7	21.5	37.7	47.5	59.8	71.2	81.3	89.2	8.3
Total of All Women (Adults and Minors) in All Establishments,	3.7	9.2	16.0	25.6	40.4	50.1	62.6	72.9	82.5	90.3	7.3

Data concerning earnings of adult women in minor confectionery establishments were not available in establishment No. 9, and in food preparation establishments were not available in establishment No. 16.

RESULTS OF WAGE BOARD ACTIVITIES.

Five wage boards were established by the Commission in 1919. Four of these, the Canning and Preserving, Candy, Corset,¹ and Men's Clothing and Raincoat Wage Boards, have completed their work and submitted reports embodying their determinations. Another, that for the knit goods occupation, is still in session. In addition to these, the Commission has authorized the establishment of wage boards for food preparations, flavoring extracts, and minor lines of confectionery, and for the paper box occupation. Acting upon petitions from employees in the industries in question, the Commission has voted to reconvene the Women's Clothing and Men's Furnishings Wage Boards. An outline of the work of the various boards in session during the year is given below.

Canning and Preserving Wage Board. — Following an investigation² made in 1918-19 into the wages of women employed in the canning and preserving industry, a wage board was established for the occupation. This was a board of 7 members representing both the fish and the fruit preserving branches. The board held its first meeting in the spring of 1919, and after 7 meetings, on June 24 submitted a unanimous report of its determinations. A cost of living budget³ of \$11 a week was estimated as the minimum requirement for a self-supporting woman in the occupation. Basing its determinations upon this estimate, the board recommended a minimum wage rate of \$11 for experienced workers and a minimum of \$8.50 for all others. After provisionally approving this report the Commission held a public hearing on the determinations July 21, 1919. At this hearing no one appeared in opposition to the board's determinations. The Commission thereafter approved these determinations and entered a decree⁴ for the occupation, effective September 1, 1919.

¹ The determinations of the Corset Wage Board were submitted shortly after the close of the fiscal year. They are, however, recorded here for the reason explained on page 33, note 1.

² This included an investigation by the Commission's agents in the summer and fall of 1918; a public hearing for employers in the occupation on the advisability of establishing a wage board; and a supplementary investigation in 1919 into rate increases since the first investigation.

³ See Appendix No. 4.

⁴ Statement and Decree concerning the Wages of Women employed in the Canning and Preserving Occupation in Massachusetts, July 21, 1919.

Candy Wage Board. — An investigation¹ into the wages paid to women and girls employed in candy factories was made in the fall of 1918. The Commission later gave a public hearing with regard to the advisability of establishing a wage board. Employers present at this hearing asked for the opportunity to submit additional data bearing on the wage situation. Action regarding the formation of a board was accordingly deferred. After consideration of the material presented, the Commission decided to establish a wage board² for the occupation. The first meeting was held in May, 1919, and after 7 meetings the board, on June 26, submitted to the Commission a unanimous report, presenting an estimate of \$12.50 as the minimum required to meet the cost of living,³ and recommending that this amount be established as the minimum rate for an experienced woman of ordinary ability, with \$8 as the minimum for all others. The Commission provisionally approved these determinations and gave a public hearing thereon for employers. At this hearing no one appeared in opposition to the board's determinations. The Commission thereafter finally approved the determinations and entered a decree for the occupation to become effective January 1, 1920.⁴

Corset Wage Board. — After an investigation,⁵ made in the spring of 1919 into the wages paid to women and girls employed in corset factories, followed by a public hearing for employers in the industry, the Commission proceeded to form a wage board. Like the Candy Wage Board, this was

¹ This was the second investigation of the candy industry made by the Minimum Wage Commission, the first having been made in 1913-14. Prior to this the Commission on Minimum Wage Boards in 1911 made an inquiry into the wages paid in candy factories.

² This was the second board established for the occupation. The first board, formed in the spring of 1914, submitted a majority report in February, 1915, recommending a minimum rate of \$8.75 a week. A technical defect in the organization of the board prevented the Commission from entering a decree at that time. Attempts to reorganize the board were interrupted by a petition from employers in the occupation for an injunction to restrain the Commission from proceeding in the matter. The Commission refrained from further action and no injunction was issued. Following the decision of the Supreme Judicial Court, September 24, 1918, upholding the constitutionality of the law creating the Commission and defining its powers, a reinvestigation of the candy industry was made and a new board formed for the occupation.

³ In view of the advance in the cost of living in the four-year period, a comparison of the reports of the two boards on this subject may be of interest. The minimum budgets adopted by the first and second Candy Wage Boards are given in Appendix No. 4.

⁴ Statement and Decree concerning the Wages of Women employed in the Candy Making Occupation in Massachusetts, July 19, 1919.

⁵ The Commission made its first investigation into the wages of women in corset factories in 1913 and 1914.

the second to be established for the occupation. The first meeting was held on October 2, 1919, and after 9 meetings¹ the board submitted a report of its determinations,¹ one member only dissenting. A cost of living budget² of \$13 a week was adopted as the minimum required to maintain in health a self-supporting woman in the occupation. This amount was recommended as the minimum rate for an experienced woman, with rates of \$8 and \$10, respectively, for minors and inexperienced workers.

Men's Clothing and Raincoat Wage Board. — Acting upon a petition³ from employees in the men's clothing and raincoat industry for a revision of the rates established by the decree⁴ entered for that occupation, the Commission voted, in accordance with the provisions of the law,⁵ to reconvene the Men's Clothing and Raincoat Wage Board. This was a board of 15 members. Six of the members of the first board and 1 member who served as a substitute on that board consented to serve again. The remaining places were filled by appointments from names submitted by associations of employers and of employees in the occupation. The board met for organization on October 24, 1919, and after 5 meetings, on November 26, 1919, submitted a unanimous report of its determinations. It estimated that living expenses have advanced approximately 50 per cent since July, 1917, when the first report was made fixing \$10 as the minimum weekly requirement for a self-supporting woman. Basing its findings upon this estimate, the board recommended a minimum wage of

¹ Although the work of the corset board was still in progress at the close of the fiscal year (the board reported on December 9, 1919), the result is recorded here, since it logically belongs in the present report as a part of the work for which the Minimum Wage Commission is responsible. The determinations of the board have recently been approved, and a decree entered, effective March 1, 1920, "Statement and Decree concerning the Wages of Women employed in Corset Factories in Massachusetts."

² See Appendix No. 4.

³ "We believe the decree regarding minimum wage for men's clothing workers, as issued by the Minimum Wage Commission, to be insufficient. Since those decrees were issued the cost of living has advanced steadily, to such an extent that they are no longer capable of supporting the worker in health and of meeting the increased cost of living. We therefore petition for a revision of these rates thru the establishment of a new wage board for men's clothing workers." (Petition received by Commission, July, 1919.)

⁴ Statement and Decree concerning the Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts, August 31, 1917.

⁵ "Whenever a minimum wage rate has been established in any occupation, the commission may, upon petition of either employers or employees, reconvene the wage board or establish a new wage board, and any recommendations made by such board shall be dealt with in the same manner as the original recommendation of a wage board." (Section 8, chapter 706, Acts of 1912, as amended.)

\$15 a week for experienced women, and minimum rates of \$7 and \$10 for beginners and apprentices. These determinations have been provisionally approved by the Commission. Their final approval and the entering of a decree embodying them is a matter for action by the board which assumes the functions of the Commission. As this is the first wage board to be formally reconvened,¹ its action is of particular significance.

Knit Goods Wage Board. — Following an investigation² into the wages of women employed in the manufacture of sweaters and miscellaneous knit goods, a wage board was established for this branch of the hosiery and knit goods occupation. Its scope was defined as all lines of knit goods, with the exception of standard lines of hosiery and underwear, but including all varieties of athletic knit goods. A board of 7 members was established. The board has held 5 meetings, the first on November 7, 1919, and is still in session.

Summary. — The results of wage board activities during the year just ended are of interest for several reasons. Two of the boards, the Candy and the Corset Wage boards, were the second to be formed for their respective occupations. A third, the Men's Clothing and Raincoat Wage Board, was the first board to be reconvened on petition for a revision of the established rates. With the single exception of the Corset Wage Board, all the boards have submitted unanimous reports; and in this particular instance only one vote was lacking to secure the same result. In distinction from the precedent set by a majority of the former boards, all of those reporting this year have recommended a minimum rate which would meet the cost of living as they determined it. The rates recommended are higher than those fixed the previous year, and considerably above any in effect in 1918. The average of the four sets of determinations reported in 1919 is approximately \$13. The determinations of the Men's Clothing and Raincoat Wage Board, fixing a \$15

¹ In this connection the original report of the board is of interest. In recommending a minimum rate of \$9, the board stated: "This finding of a minimum wage for experienced workers of \$9 a week was made with the express understanding that the conclusions are but tentative, and that it should in all probability be revised by subsequent procedure in order that no hardship either to employers or employees shall result." (Report of Men's Clothing and Raincoat Wage Board, July, 1917. See "Statement and Decree concerning the Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts, August 31, 1917.")

² An investigation of the entire industry was made by the Commission in June and July, 1919.

minimum, represent the highest rate provided by any minimum wage decree in this State.

ENFORCEMENT OF WAGE DECREES.

Inspections to ascertain compliance with the Commission's decrees have been made or completed during the year in every occupation covered by minimum wage determinations. These are the brush, laundry, retail store, women's clothing, men's clothing and raincoat, men's furnishings, muslin underwear,¹ retail¹ and wholesale millinery, office and other building cleaners, and canning and preserving industries. The last mentioned five represent the first inspections since the decree was entered. The remainder are reinspections. That of the laundry industry, however, is the first complete inspection in this occupation since the decree became operative, and represents part of the program of interrupted work which the Commission undertook to carry out this year. The inspections under the early decrees were made primarily for the purpose of ascertaining the wage situation in occupations where existing rates are obviously out of date. A summary of the results of the various inspections is given below.

Brush Industry. — In January, February, and March, 1919, the Commission made its fourth inspection of the payroll records of brush factories under the decree² which went into effect August 15, 1914. Only 2 cases of non-compliance, a percentage of .3, were found. Both were in the same factory. In 1 case the wages were raised in accordance with the decree. In the other case the employee left the employ of the firm.

This inspection showed that women were employed in 24 establishments in 1918-19, as compared with 23 at the time of the last investigation. The number of women employed in these firms, however, had decreased from 871 to 689. In general, a larger percentage were on piece rates than in any previous year. Owing to this change, a comparison of time rates is not representative. Weekly earnings as found in the first investigation and in each succeeding inspection are presented in the following table: —

¹ In the case of muslin underwear and retail millinery establishments the work was started in the latter part of the previous year and completed this year.

² Statement and Decree concerning the Wages of Women in the Brush Industry in Massachusetts, August 15, 1914.

MINIMUM WAGE COMMISSION.

Weekly Earnings of Women employed in Brush Factories, 1913, 1915, 1917 and 1919.

YEAR.	NUMBER AND PER CENT OF WORKERS EARNING —														TOTAL.	
	UNDER \$4.		\$4 AND UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
1913,	63	12.1	123	23.6	134	25.7	73	14.0	46	8.8	29	5.6	53	10.2	521	100
1915,	16	3.3	31	6.4	49	10.1	93	19.2	143	29.5	59	12.1	94	19.4	485	100
1917,	46	5.3	16	1.8	35	4.0	74	8.5	140	16.1	161	18.5	399	45.8	871	100
1919,	19	2.8	11	1.6	8	1.2	20	2.9	32	4.6	54	7.8	545	79.1	689	100

Laundry Industry. — The first thorough inspection of laundries since the laundry decree¹ went into effect was conducted in the early part of the present year. This action was made possible by the favorable court decision² sustaining the Commission's authority to determine compliance with its decrees. In this inspection pay-roll records were secured for 2,441 women and girls in 120 laundries located in the principal cities and towns throughout the State. According to the most recent figures³ available, this represents approximately 52.4 per cent of the women employed in this occupation in Massachusetts. There were 16 cases of non-compliance found in 11 firms. Of these, 9 were adjusted by an increase in wages; 1 woman left the employ of the firm before adjustment was made; 5 applied for and received special licenses authorizing them to work at rates below the minimum; the remaining case is of the special license type.

A comparison of the wage situation in laundries in 1913, the time of the original investigation, and that existing in 1918-19, is shown in the following table: —

Weekly Rates of Women employed in Laundries, 1913 and 1918-19.

YEAR.	PER CENT OF WORKERS WITH RATES OF —			
	Under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and over.
1913,	55.1	16.5	12.4	16.0
1918-19,	1.0	2.9	10.0	86.1

Retail Store Industry. — A thorough reinspection under the Retail Store Decree⁴ was made by agents of the Commission in the early part of the year. This action was taken in accordance with a resolution⁵ passed by the Retail Store Wage Board, November 29, 1918, recommending that the minimum rate should be raised immediately to at least \$10 a week, and

¹ Statement and Decree concerning the Wages of Women in Laundries in Massachusetts, July 1, 1915.

² *Holcombe v. Creamer*, 231 Mass. 99.

³ Massachusetts Bureau of Statistics, *Statistics of Manufactures, 1917*.

⁴ Statement and Decree concerning the Wages of Women in Retail Stores in Massachusetts, September 15, 1915.

⁵ Recommendations for increase in minimum wage rates for retail stores, November 29, 1918.

urging strict enforcement of the existing decree. The inspection covered the principal localities in the State. Records were secured for 12,618 women and girls employed in 216 retail establishments, including 8 five-and-ten-cent stores and 4 twenty-five-and-fifty-cent stores. The results of this inspection are shown in the following tables. In the regular retail establishments only 23.2 per cent of the women, including minors and inexperienced workers, had rates below \$10 a week. The median wage in these establishments was between \$11 and \$12. Office and alteration workroom employees represent the best-paid groups, while messengers and bundlers form the lowest. In the five-and-ten and twenty-five-and-fifty cent stores the rates are considerably below those in the other establishments. The median wage was between \$9 and \$10. Over one-half (55.3 per cent) of the women employed in these stores had weekly rates of less than \$10.

From the returns it would appear that the provisions embodied in the resolution of the wage board are in effect quite generally in the regular retail establishments. As the recommendations, however, do not have the force of a decree, it was not possible to determine definite compliance or to secure adjustment where the rates were below the proposed scale. Under the law, the only decree that the Commission could attempt to enforce was that providing an \$8.50 minimum. Based on this decree 29 cases of non-compliance, representing .2 per cent of the total number of women for whom records were secured, were found in 16 establishments. In 27 cases, representing 15 stores, the necessary wage adjustments were made. The two remaining cases were dropped because the firm was on the verge of bankruptcy.

Weekly Rates of 11,211¹ Women employed in 195 Retail Stores in Massachusetts: by Occupations.

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS WITH WEEKLY RATES OF —												Total.
	Under \$7.	\$7 and under \$8.	\$8 ² and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and under \$16.	\$16 and under \$17.	\$17 and over.	
SALESWOMEN: —													
Number,	64	111	461	589	1,859	523	1,539	322	403	507	169	602	7,149
Per cent, . . . . .	.9	1.6	6.5	8.2	26.0	7.3	21.5	4.5	5.6	7.1	2.4	8.4	100
OFFICE EMPLOYEES: —													
Number,	7	65	126	159	392	138	329	115	121	149	65	203	1,869
Per cent, . . . . .	.4	3.5	6.7	8.5	20.9	7.4	17.6	6.1	6.5	8.0	3.5	10.9	100
COUNTER CASHIERS AND EXAMINERS: —													
Number,	37	88	230	132	87	74	84	9	13	7	—	6	767
Per cent,	4.8	11.5	30.0	17.2	11.3	9.6	11.0	1.2	1.7	.9	—	.8	100
STOCK GIRLS: —													
Number,	21	45	113	58	112	21	64	6	4	13	1	4	462
Per cent,	4.5	9.7	24.5	12.6	24.2	4.5	13.9	1.3	.9	2.8	.2	.9	100
ALTERATION WORKROOM EMPLOYEES: —													
Number,	2	3	11	17	83	43	97	28	18	21	7	80	410
Per cent, . . . . .	.5	.7	2.7	4.2	20.2	10.5	23.7	6.8	4.4	5.1	1.7	19.5	100

¹ Of the total number of women for whom wage records were obtained, 13 were paid on a piece basis, 12 on a commission basis, and 314 on a commission basis in addition to their regular wage.

² Of this group, 579 women were receiving between \$8.50 and \$9:— (saleswomen, 337; office employees, 69; cashiers and examiners, 66; messengers and bundlers, 22; stock girls, 67; alteration, 10; and miscellaneous, 8).

MINIMUM WAGE COMMISSION.

Weekly Rates of 11,211 Women employed in 195 Retail Stores in Massachusetts: by Occupations — Concluded.

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS WITH WEEKLY RATES OF —												Total.
	Under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and under \$16.	\$16 and under \$17.	\$17 and over.	
MESSENGERS AND BUNDLERS: —													
Number,	24	35	81	20	26	3	5	1	—	1	—	1	197
Per cent,	12.2	17.8	41.1	10.2	13.2	1.5	2.5	.5	—	.5	—	.5	100
MISCELLANEOUS: —													
Number,	19	28	18	33	94	37	50	30	18	16	3	11	357
Per cent,	5.3	7.9	5.0	9.3	26.3	10.4	14.0	8.4	5.0	4.5	.8	3.1	100
Total: —													
Number,	174	375	1,040	1,008	2,653	839	2,168	511	577	714	245	907	11,211
Per cent,	1.6	3.3	9.3	9.0	23.7	7.5	19.3	4.5	5.1	6.4	2.2	8.1	100
Cumulative total: —													
Number,	174	549	1,589	2,597	5,250	6,089	8,257	8,768	9,345	10,059	10,304	907	
Per cent,	1.6	4.9	14.2	23.2	46.8	54.3	73.7	78.2	83.4	89.7	91.9	8.1	

Weekly Rates of 499 Women employed in 12 Five-and-ten-cent Stores¹ in Massachusetts: by Occupations.

OCCUPATIONS.	NUMBER AND PER CENT OF WORKERS WITH WEEKLY RATES OF —												Total.
	Under \$7.	\$7 and under \$8.	\$8 ² and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and under \$16.	\$16 and under \$17.	\$17 and over.	
SALESWOMEN: —													
Number,	14	21	43	195	99	40	29	16	8	13	2	9	489
Per cent,	2.9	4.3	8.8	39.9	20.2	8.2	5.9	3.3	1.6	2.7	.4	1.8	100
OFFICE EMPLOYEES: —													
Number,	—	—	1	1	1	1	—	1	1	—	1	2	9
Per cent,	—	—	11.1	11.1	11.1	11.1	—	11.1	11.1	—	11.1	22.3	100
COUNTER CASHIERS AND EXAMINERS: —													
Number,	—	—	—	1	—	—	—	—	—	—	—	—	1
Per cent,	—	—	—	100.0	—	—	—	—	—	—	—	—	100
Total: —													
Number,	14	21	44	197	100	41	29	17	9	13	3	11	499
Per cent,	2.8	4.2	8.8	39.5	20.1	8.2	5.8	3.4	1.8	2.6	.6	2.2	100
Cumulative total: —													
Number,	14	35	79	276	376	417	446	463	472	485	488	11	
Per cent,	2.8	7.0	15.8	55.3	75.4	83.6	89.4	92.8	94.6	97.2	97.8	2.2	

¹ There are 4 twenty-five-and-fifty-cent stores included in this group.² Of this group, 24 saleswomen were receiving between \$8.50 and \$9.

Women's Clothing Industry. — Reinspection of shops coming under the provisions of the Women's Clothing Decree¹ was conducted in December, 1918, and January, 1919. This was the third inspection made since the decree went into operation, February 1, 1917. Pay-roll records were secured from 22 firms. As several firms included in the former investigations, those of 1915 and of 1917, had gone out of business, or had changed from a time-rate to a piece-rate basis, comparison for the three periods can be made between only 16 firms, all located in Boston.

¹ Statement and Decree concerning the Wages of Women in Women's Clothing Factories in Massachusetts, September 28, 1916.

Weekly Rates of Women employed in Women's Clothing Establishments, 1915, 1917 and 1918.

YEAR.	NUMBER AND PER CENT OF WORKERS WITH WEEKLY RATES OF —														TOTAL.	
	UNDER \$5.		\$5 AND UNDER \$6.		\$6 AND UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND UNDER \$10.		\$10 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.		
1915, .	7	2.7	21	8.2	31	12.1	43	16.8	40	15.6	47	18.4	67	26.2	256	100
1917, .	—	—	1	.3	13	4.1	28	8.7	45	14.1	67	20.9	166	51.9	320	100
1918, .	—	—	—	—	1	.4	1	.5	4	1.7	23	9.9	203	87.5	232	100

A progressive increase in rates is shown for each period, that for the last being particularly marked, the proportion of women having rates of \$10 and over in each period being 26.2 per cent, 51.9 per cent, and 87.5 per cent, respectively. In 2 firms 8 cases of non-compliance were found. Of these, 2 were adjusted by an increase in wages; the remainder were of the special license type.

Men's Clothing and Raincoat Industry. — A reinspection under the Men's Clothing and Raincoat Decree,¹ which became effective January 1, 1918, was made during March and April of the present year. Agents of the Commission visited 79 establishments engaged in the manufacture of men's outer garments, and secured pay-roll records for 1,195 women and girls employed by these firms. Only 1 case of non-compliance was found. This was adjusted by raising the wage. Wage rates in this occupation show more striking increases than in any other investigation made by the Commission. These increases are, however, mainly due to changes in economic conditions, and to trade agreements within the industry. In 1915, the period covered by the original investigation, over three-fourths of the women (77.8 per cent) had rates under \$9. The present inspection showed only one-twentieth (5.3 per cent) with rates as low as that. Nearly one-half, however, had rates less than \$13 a week.

Men's Furnishings Industry. — The first inspection under the Men's Furnishings Decree,² which went into operation February 1, 1918, was made in the early part of that year. A second inspection was started in December, 1918. A transcript of a week's pay-roll was made in 48 factories and shops engaged in manufacturing workingmen's garments, men's furnishings, and other articles specified in the Men's Furnishings Decree. In this inspection 25 cases of non-compliance were found in 14 factories. Of these, 16 were of the special license type. Seven of the cases were adjusted by raising wages, and in the two remaining cases the workers left the employ of the

¹ Statement and Decree concerning the Wages of Women in Men's Clothing and Raincoat Factories in Massachusetts, August 31, 1917.

² Statement and Decree concerning the Wages of Women employed in the manufacture of Men's and Boys' Shirts, Overalls and Other Workingmen's Garments, Men's Neckwear and Other Furnishings, and Men's, Women's and Children's Garters and Suspenders in Massachusetts, October 26, 1917.

firm.¹ Although approximately only one-tenth of the women had rates below \$9, one-half had rates below \$12 a week. Very few were found receiving rates of \$15 a week or over.

Muslin Underwear Industry. — The inspection under the Muslin Underwear Decree,² effective August 1, 1918, was started last November, and completed the following December. In all, 77 firms were visited, and wage records secured for 1,695 women and girls. Full compliance with the provisions of the decree was found in 59 firms. In 18 firms there were 39 cases of non-compliance. Increases in rates to meet the required minimum were made in 18 cases. Special licenses were granted to 11 women authorizing their employment at rates below the minimum, and 10 women left the employ of the firms.

Although the inspection shows a considerable advance in earnings since 1915-16, the period covered by the original investigation, this advance is not comparable with the increase in the cost of living within the same period. A comparison of earnings for the year 1915-16 with those in effect at the time of the inspection is given in the table following: —

¹ One of the women was discharged and the other left voluntarily.

² Statement and Decree concerning the Wages of Women, in Muslin Underwear, Petticoat, Apron, Kimono, Women's Neckwear, and Children's Clothing Factories in Massachusetts, July 1, 1918.

Of the 2,481 women included in the several branches of the industry covered in 1915-16, only one-tenth (10.9 per cent) had average weekly earnings of \$9 or over. The wage record based on one week's pay-roll taken in November and December, 1918, gives three-fourths (74.3 per cent) of the women with earnings of \$9 a week and over.

Retail Millinery Industry. — The inspection under the Retail Millinery Decree¹ was commenced in November, 1918, and completed this year. In all, 174 workrooms were visited and wage records secured for 562 women and girls. In addition, a number of reinspections were made for the purpose of making adjustments. In 13 shops there were 14 cases where the rates fell below the minimum, or 2 per cent of the total. Of these, 4 were settled at the time of inspection by wage adjustment and 4 women left the employ of the firms in question. On later reinspection it was found that wages had been raised in 4 of the other cases, and that in the 2 remaining cases the women had left.

A comparison of the rates in effect at the time of the inspection with those of 1916, the date of the investigation preceding the establishment of the wage board, is shown in the table following. This gives 82.0 per cent of women and girls with weekly rates of \$10 and over in 1918-19, as compared with 45.6 per cent in 1916.

¹ Statement and Decree concerning the Wages of Women in Retail Millinery Workrooms in Massachusetts, July 1, 1918.

Weekly Rates of Women employed in Retail Millinery Establishments, 1916 and 1918-19.

YEAR.	PER CENT OF WOMEN WITH WEEKLY RATES OF —										Total.
	Under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
1916,	21.4	5.3	16.2	8.5	14.1	5.3	10.3	1.8	1.2	12.9	100
1918-19.	7.0	2.0	4.3	3.7	14.4	4.1	18.7	3.7	4.8	36.3	100

Wholesale Millinery Industry.—The decree¹ establishing a minimum wage for women and girls employed in the wholesale millinery occupation became effective January 1, 1919. It provides a rate of not less than \$11 a week for women eighteen years of age or over who have been employed in the industry for at least four seasons, with rates of \$6, \$7, \$8, and \$9 for other workers, according to their experience.

Inspection to determine compliance with the recommendations of the Commission was started soon after the decree went into operation. Agents of the Commission visited 28 establishments engaged in the manufacture of ready-to-wear hats, satin and velvet shapes, and wire and buckram frames, including several straw hat factories handling these lines. This represents the greater part of the industry in the State. A transcript was made of a week's pay-roll record for 841 female employees in these factories. Full compliance with the provisions of the decree was found in 22 establishments. In 6 establishments 10 cases of non-compliance were found. In 6 cases wages were raised to comply with the decree. Two were of the special license type. In one case the employee left the employ of the firm, and in the remaining case the employee was discharged.

Weekly rates for women employed in wholesale millinery establishments and on those processes in straw hat factories coming within the scope of the decree are shown in the following table. This compares the wage situation found in 1916, the period covered by the first investigation, with that in effect in 1919. As the supplementary investigation made by the Commission in the summer of 1918 showed little improvement in wages, a considerable part of the increase indicated by the figures presented may be ascribed to the effect of the decree.

¹ Statement and Decree concerning the Wages of Women in the Wholesale Millinery Occupation in Massachusetts, November 30, 1918.

MINIMUM WAGE COMMISSION.

Weekly Rates of Women employed in Wholesale Millinery and Straw Hat Establishments, 1916 and 1919.

YEAR AND INDUSTRY.	PER CENT OF WOMEN WITH WEEKLY RATES OF —										Total.
	Under \$7.	\$7 and under \$8.	\$8 and under \$9.	\$9 and under \$10.	\$10 and under \$11.	\$11 and under \$12.	\$12 and under \$13.	\$13 and under \$14.	\$14 and under \$15.	\$15 and over.	
WHOLESALE MILLINERY: —											
1916,	26.2	12.1	15.4	20.8	14.1	1.4	6.0	.7	1.3	2.0	100
1919,	1.7	2.1	4.4	2.4	8.3	16.6	29.3	10.0	5.5	19.7	100
STRAW HATS: —											
1916,	20.5	26.8	5.4	14.3	4.5	8.9	9.8	1.8	.9	7.1	100
1919,	—	3.0	—	14.1	12.1	7.1	14.2	8.1	1.0	40.1	100

Office and Other Building Cleaners.—Following the date when the decree¹ for office and other building cleaners became effective, April, 1919, an inspection was started to determine compliance with the recommendations and to ascertain their effect upon rates. The decree fixes a minimum of 30 cents an hour for night work, and 26 cents an hour for day work. The inspection included 1,353 women employed in 207 office and other buildings in Massachusetts. One hundred per cent compliance was found in 200 buildings. In 7 buildings 42 cases of non-compliance were found, all of which were adjusted by increasing wages to meet the requirements of the decree.

The number of women who received specified raises in rates at the time the decree became effective is shown in the following table:—

Increases in Weekly Rates of Women employed as Office and Other Building Cleaners, 1919.

NUMBER OF WOMEN RECEIVING RAISES IN WEEKLY RATES OF —							Total.
Under 50 Cents.	50 Cents and under \$1.	\$1 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and over.	
3	57	175	98	23	7	1	364

This indicates that approximately one-fourth of the women had increases ranging from 50 cents to \$3 a week and over. The actual number who received increases as a direct result of the decree is much larger than this, since in many instances the adjustment was made before the date the decree became effective.¹ In other cases no records had been kept prior to the inspection, so that it was impossible to determine whether an advance had been made. A fairer basis for estimating the change effected by the decree is a comparison of the rates in 1916-17, the period covered by the original investigation, with those in effect at the time of the inspection in the spring of 1919. This change is indicated by the following table:—

¹ The wage board was in session during the spring and summer of 1918. The decree was entered in January, 1919, and did not become effective until April 1 of this year.

*Weekly Rates of Women employed as Office and Other Building Cleaners,
1916-17 and 1919.*

YEAR.	NUMBER AND PER CENT OF WOMEN WITH WEEKLY RATES OF —								TOTAL.	
	UNDER \$7.		\$7 AND UNDER \$8.		\$8 AND UNDER \$9.		\$9 AND OVER.			
	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.	Num-ber.	Per Cent.
1916-17, . .	240	27.9	431	50.2	140	16.3	48	5.6	859	100
1919, . . .	37	2.9	165	13.0	135	10.6	937	73.5	1,274	100

At the time of the first investigation, only one-twentieth of the 859 women for whom wage records were available had rates of \$9 a week or more. The inspection showed that nearly three-fourths of the 1,274 women for whom information was secured had rates of \$9 or over. On the average, rates have advanced about \$2 a week since the previous investigation. Although part of this increase was due to a rather general raise in rates in the spring of 1918, a considerable part is unquestionably due to the minimum wage decree.

Canning and Preserving Industry. — The decree¹ for the canning and preserving occupation went into effect September 1, 1919. This provides a minimum rate of \$11 for experienced women eighteen years of age or over, and \$8.50 for all with less than one year's experience in the industry. Immediately thereafter an inspection of all establishments affected by the decree was started. A transcript was made of one week's pay-roll in 35 establishments employing 650 women and girls. Full compliance with the recommendations of the Commission was found in 31 establishments, and for 98.5 per cent of the total number of women for whom records were secured. In 4 establishments there were 10 cases where the rates fell below the minimum. Nine of these were adjusted by raising wages. In the remaining case a special license was granted authorizing employment at less than the minimum.

¹ Statement and Decree concerning the Wages of Women employed in the Canning and Preserving Occupation in Massachusetts, July 21, 1919.

The following tabular summary shows the number of women who received specified increases directly after the decree became effective. Records of former rates were not available in all firms, so the actual number receiving increases is not presented. In 11 firms where full information was available the rates of 127 women were raised, the amounts ranging from a few cents to slightly over \$3, the greater part varying \$1 to \$1.50 a week. The women receiving increases represent 25.5 per cent of all the women in these establishments. Information as to the extent to which the decree was responsible for these increases is not available.

Increases in Rates of Women employed in Canning and Preserving Establishments, following September, 1919.

NUMBER OF WOMEN RECEIVING SPECIFIED INCREASES OF —							Total.
Under 50 Cents.	50 Cents and under \$1.	\$1 and under \$1.50.	\$1.50 and under \$2.	\$2 and under \$2.50.	\$2.50 and under \$3.	\$3 and over.	
2	7	86	3	28	—	1	127

A comparison of the rates in the same group of establishments¹ included in the original investigation (1917-18) and in the inspection in the fall of 1919 shows a striking change in the wage situation. The increase is particularly noticeable in the fish-canning firms. In 1917-18 only 5.9 per cent of the women in the two branches had rates of \$10 or over. In 1919 this percentage had increased to 84 per cent. A considerable part of this increase was unquestionably due to the decree.

Summary. — In all the inspections made during the year, covering 1,030 establishments, and representing 24,815 women, only 196 cases of non-compliance were found, or a total of .7 per cent of the entire number for whom records were secured. Of these 196 cases, 42, or 21.5 per cent, were of the special license type; 130, or 66.3 per cent, were adjusted by the employers by raising wages; in 22 cases, representing 11.2 per cent, the women left the employ of the

¹ The figures are strictly comparable, as only those firms have been included which were investigated and had time-rate workers in each year.

firm¹; 2 cases, representing 1.0 per cent, were dropped because the firm was on the verge of bankruptcy.² The disposition of all of the special cases under the various inspections is shown in the tabular summary in the secretary's report.

So far as determining compliance with wage recommendations, inspections under the early decrees are of little value. They are, however, of distinct interest in showing existing wage conditions in the occupations covered. In the case of decrees recently entered, the inspections have a definite relation to enforcement.

The result of the work indicates substantially complete compliance with the determinations. In practically every instance where rates were found below the minimum the necessary adjustment has been made. In addition to the adjustment of wage rates, 20 cases involving the posting of notices, opening books to inspection, and keeping records required have been settled. There are no cases of this sort outstanding. Moreover, all of the adjustments have been made without recourse to legal action.

The question is sometimes raised as to the number of women who have received wage advances as a result of the Commission's decrees. No definite figures can be given. An effort to secure information on the subject is made at the time of the first inspection under a decree, by taking the rates immediately before and immediately after the decree becomes effective. The result, however, is neither complete nor representative. In some instances the former rates are not available. This is particularly the case with small establishments employing only one or two women, a situation general in the retail millinery trade, or where there is a high labor turnover. Even where the earlier rates are secured, they are rarely of significance for the purpose desired, since the adjustment may have been made at any time after the decree was entered. As a matter of fact, such adjustments are frequently effected in advance of the required time,

¹ So far as information is available in only 3 cases were employees discharged.

² The Commission endeavors to secure compliance with the spirit of the decrees, which means making the necessary wage adjustment to meet the required provisions. Technical compliance with the letter of a decree secured through the discharge of employees is not desired.

especially when a period of several months intervenes between the date the determinations are approved and the date they become operative. It sometimes happens that employers anticipate the entrance of a decree or even the establishment of a wage board by increasing rates directly following an investigation of their industry. Reinvestigations made within a few months of the original one have usually shown such advances, indicating that the wage inquiry of itself results in stimulating rates.

Practically the only way of estimating wage increases in an occupation resulting from a decree is through a comparison of wage conditions prior to the establishment of a wage board with that found by the inspection following the date the determinations become effective. In drawing such comparison, however, allowance must be made for other factors that may have entered into the wage increase. This is particularly true when considerable time has elapsed between the two investigations, and where there have been abnormal fluctuations in wage rates. For this reason, such comparisons during the period of the war are unsatisfactory.

From the evidence at hand, however, it would appear that the decrees have resulted in advanced rates for a considerable number of women and girls in the occupations affected. That the adjustments necessary to secure this have been effected in such a way that no occasion has arisen for employing the Commission's powers of publicity is evidence, not only of the reasonableness of the decrees, but also of the co-operation of employers in accepting the recommendations of the Commission. It indicates, further, a changing attitude in regard to the minimum wage work; a recognition on the part of many business men that a minimum wage is as much in their interest as in the interest of their employees; that since it is a minimum, and not a standard wage, it protects them from unfair competition by leveling up rates at the lower end of the scale to more nearly approximate those set by representative employers in the occupation.

OUTLOOK FOR 1920.

Wage Board Activities. — The past year has been one of exceptional activity in wage board work. The prospect for the coming year points to continued expansion. The steady advance in living expenses has created a particularly acute problem in the case of workers whose earnings in normal times bring them close to the margin. The ones who benefited least from war-time increases in wages were the women and girls employed in unskilled or semi-skilled occupations outside the distinct "war industries." In general, the wage situation for these workers was less favorable than before the war. In addition, the industrial readjustment following the armistice involved for many a reduction in rates and bonuses. Investigations made by the Commission during this period indicate the seriousness of the problem and the need for wage board action.

Revision of Rates. — In view of the changes within the past two years, the provisions of the early decrees are meaningless. Petitions asking for revision of rates in order to meet the increase in the cost of living have been received from workers in four occupations for which decrees have been entered. The wage boards for three of these occupations have been or are being reconvened. As there appears little definite prospect of relief from rising prices, it is reasonable to expect that further petitions of this nature will be submitted during the coming year.

Increases in Cost of Living. — The cost of living has advanced steadily since the armistice. The increase has been most pronounced in those items that represent the major part of the budget of the working girl: food, clothing, rent, and car fare. The largest single advance is that in women's clothing, — an increase of 192 per cent from December, 1914, to December, 1919.¹ Of this increase 31 per cent occurred between December, 1918, and December, 1919. The next largest increase has been in food, — an advance of \$3 per cent since December, 1914; and 3 per cent since December, 1918.¹ Changes in retail food prices since the dates

¹ From information received from the United States Bureau of Statistics.

that the various decrees entered by the Commission became effective are shown in Diagram I, frontispiece. An estimate of the changes during the same period in the principal items in the working girl's budget,¹ weighted according to their relative importance, indicates for all a general trend upward for the past year.

To a certain extent these increases in the cost of living are reflected in the more recent wage board determinations.² The minimum rate of \$12.50 set by the Candy Board which reported in June represents an advance of approximately 42.9 per cent over the \$8.75 minimum recommended by the former board in February, 1915. The \$13 minimum of the Corset Board, reported at the close of the year, is an advance of 62.5 per cent over the \$8 rate considered³ by the first board in its session in the fall of 1915. The most striking advance is that made by the reconvened board for the men's clothing and raincoat occupation, which reported in the latter part of November of this year, recommending a minimum rate of \$15 a week. This represents an increase of 66.7 per cent over the \$9 rate reported by the board July, 1917, and an advance of 50 per cent over the cost of living as found by the board at that time.

Comparison of Massachusetts Rates with those in Effect in Other States. — With these decrees in effect, Massachusetts rates will compare favorably with those in other States. Outside the District of Columbia, the highest minimum in the United States is the \$13.50 rate established this summer by California for mercantile establishments,⁴ the canning industry,⁴ and hotels and restaurants.⁵

Washington established for the period of the war a uniform rate of \$13.20 for all occupations.⁶ Wisconsin has this year fixed a minimum hourly rate of 22 cents, which for full-time employment (fifty-six hours for adult women) yields \$12.32.⁷

¹ Appendix No. 5.

² For comparison of the changes in the food cost of living and in minimum rates, see Diagram I, frontispiece.

³ No agreement was reached by the first board, but the rate suggested by the chairman and discussed by the board was \$8 a week.

⁴ United States Bureau of Labor Statistics, *Monthly Labor Review*, August, 1919, pp. 200-205.

⁵ *Ibid.*, November, 1919, pp. 215-217.

⁶ *Ibid.*, November, 1918, pp. 177-179.

⁷ *Ibid.*, September, 1919, pp. 254-256.

In Oregon the rate is \$11.61.¹ Kansas² and Minnesota³ have established \$11 as the minimum. The highest minimum wage determinations in effect are those entered this year by the District of Columbia Minimum Wage Board, providing a rate of \$15.50 in the printing, publishing, and allied trades,⁴ and \$16.50 for mercantile establishments.⁵ Texas is considering a \$15 minimum for all occupations.

Recent Developments in Minimum Wage Work. — In addition to the establishment of the rates just mentioned, the most important developments in this country during the past year are the passage of minimum wage laws by Texas, North Dakota, and Porto Rico. Both the Texas and North Dakota laws are modeled on the Oregon one. In North Dakota the law is administered by the Workingmen's Compensation Bureau, and authorizes the fixing of standards of hours as well as rates.⁶ In Texas the work is conducted by the Industrial Welfare Commission.⁷ The Porto Rico law, like that of Arkansas and Utah, provides a flat rate minimum.⁸ This act, which became effective September 7 of the present year, fixes a wage of not less than \$6 for women eighteen years of age or over, and not less than \$4 for those under eighteen. In each case a three weeks' apprenticeship is required.

Modification of Existing Legislation. — Under the new civil administrative code for the consolidation of governmental functions adopted this year by Nebraska,⁹ the articles establishing the board of mediation and investigation and the minimum wage commission are repealed. This is the first backward step in minimum wage legislation in this country.

Outside the United States, progress in minimum wage work during the past year has been rapid. New legislation has

¹ Industrial Welfare Commission of the State of Oregon, Orders, October 14, 1919.

² United States Bureau of Labor Statistics, Monthly Labor Review, November, 1919, pp. 218, 219.

³ *Ibid.*, September, 1919, pp. 251-253.

⁴ *Ibid.*, July, 1919, pp. 165-167.

⁵ *Ibid.*, October, 1919, pp. 163, 164.

⁶ The American Labor Legislation Review, Vol. IX, No. 4, December, 1919, p. 423.

⁷ *Ibid.*, December, 1919, p. 424.

⁸ *Ibid.*, December, 1919, pp. 500, 501.

been enacted in the Canadian provinces, Quebec,¹ and Saskatchewan.¹ Manitoba has entered a minimum rate of \$12.50 for women employed in hotels and restaurants,² British Columbia a minimum of \$15 for office employees,³ and Saskatchewan, \$15 for employees in shops.⁴ Argentina has recently passed a law to regulate home work by the establishment of trade boards to fix minimum rates for such workers.⁵ In England there has been remarkable expansion in the activities of trade boards since the passage of the act of 1918,⁶ extending the powers granted under the trade boards act of 1909. Besides the 9 industries included under the Acts of 1909 and 1913, trade boards have been established for 7 others, and are being formed for 19 additional ones.⁶ The existing rates fixed by the early boards are being revised upward to meet the changes in living expenses.

A significant trend in minimum wage development in this country is that towards greater uniformity in rates within the various States having minimum wage legislation.⁷ The laws of Arkansas and Utah provide for a flat rate fixed by statute. Wisconsin and Minnesota, which have much broader powers, have each during the past eighteen months fixed a single rate for the various industries in the State coming within the provisions of the law, and California, Oregon, and Washington have established minimum rates for large groups of industries. Texas is considering a similar plan.⁸ This means simplification of the work, with attendant economy in administration. It also means uniform regulations;⁸ the same protection for all working women from sub-normal wages;⁸ the same protection for all employers from unfair competition.

¹ United States Bureau of Labor Statistics, Monthly Labor Review, July, 1919, p. 230.

² *Ibid.*, September, 1919, pp. 257, 258.

³ *Ibid.*, November, 1919, pp. 219, 220.

⁴ *Ibid.*, December, 1919, p. 266.

⁵ Great Britain Labour Gazette (London), February, 1919, p. 43.

⁶ *Ibid.*, September, 1919, p. 369; October, p. 457; November, pp. 503-509.

⁷ Minimum wage laws are now in effect in the following States: Arizona, Arkansas, California, Colorado, Kansas, Massachusetts, Minnesota, North Dakota, Oregon, Utah, Texas, Washington, and Wisconsin, as well as in Porto Rico and the District of Columbia.

⁸ American Labor Legislation Review, Vol. IX, No. 4, December, 1919, p. 424.

Value of Wage Board Work. — With the extension of minimum wage work in Massachusetts, the establishment of a number of decrees for various industries, each with different rates and with provisions varying in complexity from a single wage class for an occupation to five or six classes, the problem becomes increasingly difficult. Added to this is the inevitable overlapping of decrees in related industries, and the duplication of effort and confusion arising from the application of several decrees to a single establishment where various distinct lines of work are conducted. The advantage from an administrative point of view of standardization in rates and in the provisions regarding their application is self-evident. Whether a modification of the present law for the purpose of securing greater uniformity in wage regulations is feasible, is a question that deserves serious consideration. In connection with any effort to effect such a change, however, no sacrifice of wage board functions should be permitted, for the wage boards represent the most vital part of minimum wage work. The conduct of wage boards, it is true, presents extremely difficult problems. The standards of the various boards differ greatly, and the action of individual boards is sometimes disappointing. Notwithstanding these limitations, the work is of distinct educational and social value. In addition to their concrete purpose of improving wage conditions for women and girls and in removing unfair competition within an industry, the wage boards contribute, although on a small scale, towards a solution of some of the serious industrial problems of to-day. In so far as they succeed in bringing together groups with conflicting views, and inducing them to recognize the community of their interest and their mutual obligation to the Commonwealth, in so far as they succeed in replacing prejudice with understanding, suspicion with confidence and respect, they are helping to remove some of the underlying causes of industrial unrest. It is through the recognition and conscious development of this service that the fullest possibilities of the wage boards can be realized.

RECOMMENDATIONS.

Legislation.

In order to secure fair representation for the various interests affected by the work of wage boards, it is essential that greater flexibility in the choice of wage board members should be permitted. Under the present law, if no more than the required number of names is submitted, the Commission has no freedom of choice, but must appoint the nominees presented, irrespective of whether the board so constituted is properly representative of the occupation in question. The Commission therefore asks for authority to appoint, in certain instances, a specified proportion of the members directly. The experience of the Commission has demonstrated the need for such legislation.

Appropriation.

The General Court granted the Commission for the fiscal year ending November 30, 1919, an appropriation of \$22,000. The purposes for which this money has been expended are shown in the financial statement which follows.

A slight increase over this amount is asked for the ensuing year. The principal items for which additional expenditure is needed are for salaries of the staff and expenses of wage boards. The act¹ increasing the pay of jurors, which became effective July 17 of the present year, automatically advances the compensation of wage board members one-third. Increases in hotel rates and transportation charges will add to the general expenses of the boards. Moreover, several of the boards established during 1919 were unable to begin the work until the close of the year; the major part of their expenses must therefore be met from the appropriation for 1920.

A larger appropriation for salaries is required to cover advances already authorized and to provide for others needed to bring the rates for the various positions more nearly in agreement with the standard rates approved for such positions, in order to maintain a competent staff of experienced workers.

¹ Chapter 112 of the General Acts of 1919.

Minor increases recommended are intended to provide for advances in traveling expenses and for increased cost of supplies. On the other hand, certain reductions from last year's budget are possible, due to the elimination of the Commissioners' salaries and the charge for rent.

After allowance for these reductions the budget for 1920 represents an increase of \$1,000 over the amount authorized for the past year, and a decrease of \$2,000 from the estimate for 1919. On the basis of the work now in progress this recommendation represents the minimum required for carrying on the activities of the Commission.

CHARLES F. DUTCH, *Chairman.*

MABEL GILLESPIE.

ARTHUR C. COMINS.

REPORT OF THE SECRETARY.

To the Minimum Wage Commission.

I herewith submit the following tabular statement showing the number of establishments inspected and the number of workers for whom wage records were secured in the investigations conducted by the Commission during 1919, together with a summary of the expenditure of the appropriation granted by the General Court for that year.

INVESTIGATIONS MADE BY THE MINIMUM WAGE COMMISSION
IN 1919.

Investigations made under Section 3 of the Minimum Wage Law.

INDUSTRY.	NUMBER OF ESTABLISHMENTS INVESTIGATED.			NUMBER OF WOMEN FOR WHOM WAGE RECORDS WERE OBTAINED.			
	Wage Records Available.	Wage Records Lacking or Inadequate. ¹	Total.	Records tabulated.	RECORDS NOT USED FOR GENERAL TABULATIONS		Total.
					Used only in Rate Tables.	Excluded from All Tabulation.	
Paper box, ²	16	—	16	1,054	—	247	1,301
Corset, ²	10	—	10	1,361	—	262	1,623
Hosiery and knit goods, ²	25	—	25	2,681	—	337	3,018
Minor confectionery, .	11	1	12	314	35	127	476
Food preparations, .	26	4	30	287	33	65	385
Total,	88	5	93	5,697	68	1,038	6,803

¹ Includes only firms where pay-roll was not kept, or records were illegible or inadequate (less than four months' pay-roll).

² Second investigation (preliminary to forming wage board).

Tabular Summary of Reinspections for 1919.

	Brush.	Laundries.	Retail Stores.	Women's Clothing.	Men's Clothing and Raiment.	Men's Furnishings.	Muslin Underwear.	Retail Millinery.	Wholesale Millinery.	Office Buildings.	Canning and Preserving.	Total.
Number of records secured,	689	2,441	12,618	464	1,195	2,307	1,695	562	841	1,353	650	24,815
Number of firms visited,	24	120	216	22	79	48	77	174	28	207	35	1,030
Number with full compliance,	23	109	200	20	78	34	59	161	22	200	31	937
Number of cases of apparent non-compliance,	2	16	29	8	1	25	39	14	10	42	10	196
Number of these of special license type,	-	6	-	6	-	16	11	-	2	-	1	42
Cases remaining for settlement,	2	10	29	2	1	9	28	14	8	42	9	154
Settled by employers' adjustment, ¹	1	9	27	2	1	7	18	8	6	42	9	130
Left employ of firm, ²	1	1	-	-	-	-	10	6	2	-	-	22
Cases dropped, ³	-	-	2	-	-	-	-	-	-	-	-	2

¹ In 2 cases adjustment was made by changing the basis of payment, and in 3 cases the minimum was being paid at the time of the second inspection. In one case wages were raised, and two weeks later the employee was discharged. In all of the other cases wages were raised by the employer to meet the provisions of the decree.

² Includes 3 cases where the employee was discharged.

³ The reason for dropping these cases was because the firm, in which they occurred was apparently on the verge of bankruptcy.

FINANCIAL STATEMENT.

Appropriations:—

Salaries and expenses of commissioners,	\$2,300 00	
Salaries,	12,000 00	
Compensation and expenses of wage boards,	3,200 00	
Traveling and contingent expenses,	4,500 00	
	<hr/>	\$22,000 00

Expenditures:—

Salaries and expenses of commissioners,	\$1,465 94	
Salaries,	10,923 20	
Compensation and expenses of wage boards,	1,564 55	
Traveling and contingent expenses:—		
Rent,	\$799 98	
Light,	10 05	
Traveling expenses,	785 93	
Telephone and telegraph,	170 94	
Express and messenger,	18 78	
Stationery and office supplies,	719 89	
Printing,	1,445 23	
Postage,	186 22	
Books, periodicals, clippings,	177 73	
Advertising,	4 90	
Typewriting,	13 64	
	<hr/>	4,333 29
	<hr/>	\$18,286 98

Unexpended balance revert-
ing to State treasury:—

Salaries and expenses of commis- sioners,	\$834 06	
Salaries,	1,076 80	
Compensation and expenses of wage boards,	1,635 45	
Traveling and contingent ex- penses,	166 71	
	<hr/>	3,713 02
	<hr/>	\$22,000 00

Respectfully submitted,

ETHEL M. JOHNSON,
Executive Secretary.

APPENDICES

APPENDIX No. 1.

AMENDMENTS TO THE MINIMUM WAGE LAW ENACTED IN 1919.

The following acts amending chapter 706, Acts of 1912 with amendments, were passed by the General Court in 1919: —

CHAPTER 72, GENERAL ACTS.

AN ACT TO PROVIDE FOR FILLING VACANCIES ON WAGE BOARDS.

Be it enacted, etc., as follows:

Section four of chapter seven hundred and six of the acts of nineteen hundred and twelve, as amended by section one of chapter three hundred and sixty-eight of the acts of nineteen hundred and fourteen, is hereby further amended by adding at the end thereof the following: — The commission shall have power to fill a vacancy or vacancies arising in a duly constituted wage board by appointing a sufficient number of suitable persons to complete the representation of the employers, employees, or public, as the case may be, — so as to read as follows: — *Section 4.* If after such investigation the commission is of the opinion that in the occupation in question the wages paid to a substantial number of female employees are inadequate to supply the necessary cost of living and to maintain the worker in health, the commission shall establish a wage board consisting of an equal number of representatives of employers in the occupation in question, and of persons to represent the female employees in said occupation, and of one or more disinterested persons appointed by the commission to represent the public; but the representatives of the public shall not exceed one half of the number of representatives of either of the other parties. The commission shall give notice to employers and employees in said occupation by publication or otherwise of its determination to establish a wage board and shall request that said employers and employees, respectively, nominate representatives for said board by furnishing names to the commission. The representatives of employers and employees shall be selected by the commission from names furnished by the employers and by the employees, respectively, provided that these names are furnished within ten days after the request of the commission. The commission shall designate as chairman one of the representatives of the public, and shall make rules and regulations governing the selection of members and the modes of procedure of the

boards, and shall exercise exclusive jurisdiction over all questions arising with reference to the validity of the procedure and of the determinations of the boards. The members of wage boards shall be compensated at the same rate as jurors, and they shall be allowed the necessary travelling and clerical expenses incurred in the performance of their duties, these payments to be made from the appropriation for the expenses of the commission. The commission shall have power to fill a vacancy or vacancies arising in a duly constituted wage board by appointing a sufficient number of suitable persons to complete the representation of the employers, employees, or public, as the case may be. [*Approved April 3, 1919.*]

CHAPTER 76, GENERAL ACTS.

AN ACT TO REQUIRE EMPLOYERS TO KEEP RECORDS OF THE WORKING HOURS OF WOMEN AND MINORS IN CERTAIN CASES.

Be it enacted, etc., as follows:

Section eleven of chapter seven hundred and six of the acts of nineteen hundred and twelve, as amended by section one of chapter three hundred and thirty of the acts of nineteen hundred and thirteen and by section four of chapter three hundred and sixty-eight of the acts of nineteen hundred and fourteen, is hereby further amended by inserting after the word "minor", in the fifth line, the words: — and if the commission shall so require, shall also keep for a specified period, not exceeding six months, a record of the hours worked by such employees, — and by inserting after the word "minors", in the twelfth line, the words: — and the hours worked by such employees. Any employer failing to keep a register or records as herein provided, or refusing to permit their inspection or examination shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than five nor more than fifty dollars for each offense, — so as to read as follows: —

Section 11. Every employer of women and minors shall keep a register of the names, addresses and occupations of all women and minors employed by him, together with a record of the amount paid each week to each woman and minor, and if the commission shall so require, shall also keep for a specified period, not exceeding six months, a record of the hours worked by such employees, and shall, on request of the commission or of the director of the bureau of statistics, permit the commission or any of its members or agents, or the director of the bureau of statistics or any duly accredited agent of said bureau, to inspect the said register and to examine such parts of the books and records of employers as relate to the wages paid to women and minors and the hours worked by such employees. Any employer failing to keep a register or records as herein provided, or refusing to permit their inspection or examination shall be deemed guilty of a misdemeanor, and shall be punished by a fine of not less than five nor more than fifty

dollars for each offense. The commission shall also have power to subpoena witnesses, administer oaths and take testimony. Such witnesses shall be summoned in the same manner and be paid from the treasury of the commonwealth the same fees as witnesses before the superior court. [*Approved April 4, 1919.*]

CHAPTER 77, GENERAL ACTS.

AN ACT TO PROVIDE FOR THE POSTING OF NOTICES OF HEARINGS, NOMINATIONS FOR WAGE BOARDS, AND OF DECREES OF THE MINIMUM WAGE COMMISSION.

Be it enacted, etc., as follows:

SECTION 1. Chapter seven hundred and six of the acts of nineteen hundred and twelve, as amended by chapters three hundred and thirty and six hundred and seventy-three of the acts of nineteen hundred and thirteen, by chapter three hundred and sixty-eight of the acts of nineteen hundred and fourteen and by chapter three hundred and three of the General Acts of nineteen hundred and sixteen, is hereby further amended by inserting after section eleven the following new section, to be numbered 11A: — *Section 11A.* The commission may require employers in any occupation to post notices of its hearing or of nominations for wage boards, or of decrees that apply to their employees, in such reasonable way and for such length of time as it may direct. Whoever refuses or fails to post such notices or decrees, when so required, shall be punished by a fine of not less than five nor more than fifty dollars for each offense. The commission and the state board of labor and industries shall have power to enforce the provisions of this section.

SECTION 2. Chapter sixty-five of the General Acts of nineteen hundred and fifteen is hereby repealed. [*Approved April 4, 1919.*]

APPENDIX No. 2.

CHRONOLOGY OF MINIMUM WAGE LEGISLATION IN
MASSACHUSETTS.

- May 11, 1911.* — Resolution passed providing for the appointment of a commission to investigate the wages of women and minors, and to report on the advisability of establishing minimum wage boards. (Acts and Resolves of 1911, chapter 71.)
- January 10, 1912.* — Report of Commission on Minimum Wage boards to Legislature recommending establishment of permanent commission. (House Bill No. 1697 of 1912.)
- June 4, 1912.* — Enactment of measure establishing Minimum Wage Commission and providing for the determinations of minimum wages for women and minors. (Acts of 1912, chapter 106.)
- March 21, 1913.* — Amendment passed to facilitate the gathering of information relative to the wages of women and minors. (Acts and Resolves of 1913, chapter 330.)
- May 19, 1913.* — Amendment passed to increase the powers and further define the duties of the Minimum Wage Commission. (Acts and Resolves of 1913, chapter 673.)
- April 17, 1914.* — Amendment passed relative to the determination of minimum wages for women and minors. (Acts and Resolves of 1914, chapter 368.)
- March 12, 1915.* — Act to provide for the posting of information in places of employment passed. (General Acts of 1915, chapter 65.)
- June 2, 1916.* — Amendment to establish certain qualifications for members of the Minimum Wage Commission. (General Acts of 1916, chapter 303.)
- December 12, 1917.* — Argument of test case involving constitutionality of minimum wage law. (Holcombe v. Creamer, 231 Mass. 99.)
- September 24, 1918.* — Decision of Supreme Judicial Court of Massachusetts upholding constitutionality of minimum wage law. (Holcombe v. Creamer, 231 Mass. 99.)
- April 3, 1919.* — Amendment passed to provide for filling vacancies on wage boards. In effect July 2, 1919. (General Acts of 1919, chapter 72.)

April 4, 1919. — Amendments passed to require employers to keep records of the working hours of women and minors in certain cases, and to provide for the posting of notices of hearings, nominations for wage boards, and of decrees of the Minimum Wage Commission. In effect July 3, 1919. (General Acts of 1919, chapters 76, 77.)

July 23, 1919. — Act passed to organize in departments the executive and administrative functions of the Commonwealth. By this act the Minimum Wage Commission is abolished and its work transferred to the Board of Conciliation and Arbitration acting under the Department of Labor and Industries. (General Acts of 1919, chapter 350.)

December 1, 1919. — Consolidation Act in effect.

APPENDIX No. 3.

MEMBERSHIP OF WAGE BOARDS IN SESSION IN 1919.

The Commission takes this opportunity to acknowledge the generous assistance of the men and women who have freely given their time to public service on wage boards, and to whose devoted efforts is due the success of the wage board work.

Following is a list of the members of the wage boards that were in session during the year: —

CANNING AND PRESERVING WAGE BOARD.

Representing the Public.

Judge Winfred H. Whiting, *Chairman.*

Representing the Employers.

M. Sumner Coggan, Esq.

William T. Gamage.

Lewis E. Whipple.

Representing the Employees.

Christian F. Boeken.

Mrs. Henrietta Montondo.

Ralph Silva.

CANDY MAKERS' WAGE BOARD.

Representing the Public.

Chester T. Porter, *Chairman.*

Robert W. Maynard.

Sara H. Stites.

Representing the Employers.

Walter H. Belcher.

William E. Crosby.

Harry S. Curtis.

James Macnaughtan.

Charles D. Rice.

Dale G. Steely.

Representing the Employees.

Agnes Abbott.
 Florence Adesska.
 Florence Palmer.
 Rose E. Scalli.
 Anna Waisnor.
 Anna Weinstock.

MEN'S CLOTHING AND RAINCOAT WAGE BOARD (RECONVENED).

Representing the Public.

Charles C. Ramsay, Esq., *Chairman*.
 Maurice B. Hexter.
 Frances Van Baalen.¹

Representing the Employers.

Morris B. Anderson.
 Benjamin Asher.²
 Joseph Barron.¹
 Walter C. Billings.
 Ira F. Burnham.¹
 Luther C. White.

Representing the Employees.

Nathan Biller.¹
 Jack Blume.¹
 Sarah F. Landsberg.
 Leon Lebovitz.¹
 Fred Monosson.
 Harry Nurenberg.

CORSET WAGE BOARD (IN SESSION).

Representing the Public.

Chester T. Porter, *Chairman*.

Representing the Employers.

Albert W. Darling.
 Henry H. Hayes.
 John J. Linehan.

Representing the Employees.

Mrs. Edith (Baldwin) Farnam.
 Mary Madden.
 Mrs. Margaret Veazie.

¹ Served on first wage board.

² Mr. Benjamin Asher served as substitute for his father on the first wage board.

KNIT GOODS WAGE BOARD (IN SESSION).

*Representing the Public.*Edward C. Mason, Esq., *Chairman.**Representing the Employers.*

Stephen Bowen.

Samuel C. Feuerstein.¹

Samuel P. Kaplan.

Representing the Employees.

Fannie Cherkofski.

Annie Markell.

Mrs. Mary Gordon Thompson.

¹ Appointed in place of Frank O. Bryan, resigned November 28, 1919.

APPENDIX No. 4.

ITEMIZED COST OF LIVING BUDGETS.

[As adopted by Massachusetts wage boards.]

	Brush Board (January, 1914).	Candy Board (Summer, 1914).	Laundry Board (Winter, 1915).	Women's Clothing Board (Spring, 1916).	Men's Clothing Board (Spring, 1917). ¹	Men's Furnishings Board (Summer, 1917).	Muslin Underwear Board (Winter, 1918).	Retail Millinery Board (Spring, 1918).	Office Cleaners' Board (Spring, 1918).	Wholesale Millinery Board (Fall, 1918).	Canning and Preserving Board (Spring, 1919).	Candy Board (Spring, 1919).	Corset Board (Fall, 1919).
Board and lodging,													
Clothing,	\$5 25	\$5 25	\$5 25	\$5 75	\$5 50	\$6 00	\$6 00	\$7 00	\$7 00	\$7 00	\$6 00	\$7 00	\$7 00
Laundry,	1 44	1 50	1 50	1 50	1 90	1 75	1 50	1 92	1 75	2 00	2 25	2 25	2 50
Car fares,	50	45	50	25	35	30	25	30	30	50	30	50	46
Doctor and dentist,	70	60	60	10	40	60	60	60	60	84	25	76	40
Church,	20	25	25	25	25	20	40	20	45	30	35	30	40
Newspapers and magazines,	10	11	11	18	10	15	10	11	13	13	15	11	15
Vacation,	16	11	16	10	15	15	-	35	25	18	20	18	17
Recreation,	19	20	20	25	25	35	-	25	25	40	40	40	45
Savings, ²	17	20	20	25	25	-	-	25	20	30	30	30	30
Incidentals,	-	-	-	25	50	25	60	25	25	30	30 ³	30 ¹	37
Organization dues,	-	-	-	10	20	25	20	25	35	25	25	25	38
Insurance,	-	-	-	-	15	15	20	-	-	-	-	-	-
Self-improvement,	-	-	-	-	-	10	-	10	15	10	- ³	- ³	12
Benefit associations,	-	-	-	-	-	-	-	20	-	25	25	15	15
Total,	\$8 71	\$8 67⁴	\$8 77	\$8 98	\$10 00	\$10 45	\$9 65	\$11 64	\$11 54	\$12 50	\$11 00	\$12 50	\$13 00

¹ The Men's Clothing Board (renewed, fall of 1919) unanimously voted a minimum rate of \$15 to supersede the \$9 rate, the new rate to become effective on February 1, 1920.

² This item was classed as "reserve for deficiency" by the Corset Wage Board.

³ The Canning and Preserving Wage Board and the Candy Wage Board included insurance in the figure given for savings.

⁴ \$8.75 was voted unanimously by the Candy Makers' Wage Board from the above budget as the necessary cost of living, allowing 8 cents extra for miscellaneous requirements.

APPENDIX No. 5.

ESTIMATE OF INCREASE IN THE COST OF LIVING
SINCE THE VARIOUS DECREES WERE ENTERED.

ITEMS.	APPROXIMATE PER CENT OF INCREASE FROM SPECIFIED DATES TO JANUARY, 1920.						
	From Decem- ber, 1914. <i>a</i>	From Decem- ber, 1915. <i>b</i>	From Decem- ber, 1916. <i>c</i>	From Decem- ber, 1917. <i>d</i>	From June, 1918. <i>e</i>	From Decem- ber, 1918. <i>f</i>	From June, 1919. <i>g</i>
Food, ¹	88	88	56	25	22	5	7
Clothing (Women's), ² .	159	145	113	64	33	27	12
Rent, ²	40	38	30	28	21	9	8
Sundries, ²	75	72	61	35	17	13	9
Total (weighted),³	91	88	63	34	25	11	8

a Brush decree, effective August 15, 1914.

b Laundry decree, effective September 1, 1915, and Retail Store Decree, effective January 1, 1916.

c Women's Clothing Decree, effective February 1, 1917.

d Men's Clothing and Raincoat Decree, effective January 1, 1918, and Men's Furnishings Decree, effective February 1, 1918.

e Muslin Underwear Decree, effective August 1, 1918, and Retail Millinery Decree, effective August 1, 1918.

f Wholesale Millinery Decree, effective January 1, 1919.

g Office and Other Building Cleaners Decree, effective April 1, 1919, and Canning and Preserving Decree, effective August 1, 1919.

¹ From United States Bureau of Labor Statistics, Retail Food Prices for United States.

² From the Report of the Commission on the Necessaries of Life, Massachusetts House Bill 1500, February, 1920. The item, rent, includes fuel.

³ The total increase is obtained by weighting the four items quoted according to their relative importance in the working girl's budget, estimated as follows: food, 5; rent, 2; clothing, 2; sundries, 1. In connection with these estimates it should be noted that in the case of food and rent the actual increase for the individual will frequently be above the amounts quoted; for these figures represent family budgets and are based upon retail market prices on one hand, and upon house or apartment rents on the other. Advances in these items reach the self-dependent working girl in the form of increased rates for her lodgings, and higher prices in the dining rooms and delicatessen shops upon which she depends.

APPENDIX No. 6.

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS TO JANUARY 1, 1920.

KIND OF WORK COVERED.	WORKERS AFFECTED.		Wage Rates.	Remarks.	Decree Effective.
	Class.	Age.			
Brush industry.	Experienced time workers.	Any.	\$0.155 an hour.	Piece rates also to yield at least \$0.155 an hour.	Aug. 15, 1914.
	Learners and apprentices—time workers.		65 per cent of above (about \$0.10).	Time of apprenticeship not more than 1 year.	
Laundry.	Experienced females of ordinary ability.	Any.	\$8 weekly.	To be deemed "experienced" after 1 year's apprenticeship if absences during that period have not been of unreasonable duration. For females of less than ordinary ability wage fixed by special license.	Sept. 1, 1915.
	Learners and apprentices:— (1) 9-12 months' experience. (2) 6-9 months' experience. (3) 3-6 months' experience. (4) Under 3 months' experience.		(1) \$7.50 weekly. (2) \$7 weekly. (3) \$6.50 weekly. (4) \$6 weekly.		
Retail stores.	Experienced females of ordinary ability.	19 or over.	\$8.50 weekly.	As above. Extra or part-time workers to receive at least same scale of pay pro rata for time actually employed.	Jan. 1, 1916.
	Learners and apprentices.	(1) 18 or over. (2) 17. (3) Less than 17.	(1) \$7 weekly. (2) \$6 weekly. (3) \$5 weekly.		

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS TO JANUARY 1, 1920 — *Continued.*

KIND OF WORK COVERED.	WORKERS AFFECTED.		Wage Rates.	Remarks.	Decree Effective.
	Class.	Age.			
Women's clothing factories (cloak, suit, skirt, dress, and waist-shops).	Experienced females of ordinary ability.	19½ or over.	\$8.75 weekly.	To be deemed "experienced" after 1½ years' apprenticeship after reaching 18 if absences during that period have not been of unusual duration. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1917.
	Learners and apprentices.	(1) 18 or over. (2) Less than 18.	(1) \$7 weekly. (2) \$6 weekly.		
Men's furnishings factories (manufacture of men's and boys' shirts, overalls, and other workmen's garments, men's neckwear and other furnishings, and men's, women's and children's garters and suspenders).	Experienced females of ordinary ability.	Any.	\$9 weekly.	To be deemed "experienced" after 52 weeks' apprenticeship. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1918.
	Learners and apprentices: — (1) 26-52 weeks' experience. (2) 6-26 weeks' experience.	Any.	(1) \$8 weekly. (2) \$7 weekly.		
Muslin underwear, petticoat, apron, kimono, women's neckwear, and children's clothing factories.	Experienced females of ordinary ability.	18 or over.	\$9 weekly.	To be deemed "experienced" after 52 weeks' apprenticeship, 26 weeks of which shall have been in the factory in which she is for the time being employed. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Aug. 1, 1918.
	Learners and apprentices: — (1) 26-52 weeks' experience. (2) 13-26 weeks' experience. (3) Less than 13 weeks' experience.	(1) 18 or over. (2) 18 or over. (3) Any.	(1) \$8 weekly. (2) \$7 weekly. (3) \$6 weekly.		

Retail millinery workrooms.	Experienced females of ordinary ability.	19 or over.	\$10 weekly.	To be deemed "experienced" after 4 seasons' apprenticeship, including 10 weeks in fall seasons and 16 weeks in spring seasons. If apprentice enters trade at 15 or younger it is required that she have 12 weeks' experience in season preceding one in which \$10 minimum becomes effective. Twelve weeks shall constitute a season. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Aug. 1, 1918.
Wholesale millinery occupation.	Experienced females of ordinary ability.	18 or over.	\$11 weekly.	To be deemed "experienced" after 4 seasons' apprenticeship, including 12 weeks in each of 2 spring seasons, and 12 weeks in each of 2 fall seasons, or, in case of those employees whose work is not of seasonal character, after two years. Twelve weeks shall constitute a season. For the purpose of computing weeks of experience a week's work shall consist of not less than 36 hours. For females of less than ordinary ability wage fixed by special license.	Jan. 1, 1919.
	Learners and apprentices: — (1) 3 seasons' experience, or 63 weeks within a period of not less than 78 weeks. (2) 2 seasons' experience, or 42 weeks within a period of not less than 52 weeks. (3) 1 season's experience, or 21 weeks within a period of not less than 26 weeks. (4) Less than 1 season's experience, or 21 weeks.	Any.	(1) \$9 weekly. (2) \$8 weekly. (3) \$7 weekly. (4) \$6 weekly.		
Office and other building cleaners' occupation.	Females of ordinary ability.	Any.	30 cents an hour (between the hours of 7 P.M. and 8 A.M.); 26 cents an hour (between the hours of 8 A.M. and 7 P.M.).	For females of less than ordinary ability wage fixed by special license.	April 1, 1919.

MINIMUM WAGE DECREES ESTABLISHED IN MASSACHUSETTS TO JANUARY 1, 1920 — *Concluded.*

KIND OF WORK COVERED.	WORKERS AFFECTED.		Wage Rates.	Remarks.	Decree Effective.
	Class.	Age.			
Canning and preserving occupation.	Experienced females of ordinary ability.	18 or over.	\$11 weekly.	To be deemed "experienced" after reaching the age of 18 years and having one year's experience. For the purpose of computing experience, a year's work shall consist of not less than 40 weeks. For females of less than ordinary ability wage fixed by special license.	Sept. 1, 1919.
	Learners and apprentices.	Any.	\$8.50 weekly.		
Candy making occupation.	Experienced females of ordinary ability.	Any.	\$12.50 weekly.	To be deemed "experienced" after apprenticeship of 67 weeks within a period of not less than 78 weeks. For females of less than ordinary ability wage fixed by special license.	Jan. 1, 1920.
	Learners and apprentices.	Any.	\$8 weekly.		
Men's clothing and raincoat occupation. ¹	Experienced females of ordinary ability.	Any.	\$15 weekly.	To be deemed "experienced" after one year's apprenticeship. An employee, irrespective of age, shall be eligible for the minimum recommended for learners and apprentices, who has been employed in the occupation for at least three months. For females of less than ordinary ability wage fixed by special license.	Feb. 1, 1920.
	Learners and apprentices.	Any.	\$10 weekly.		
	All others.	Any.	\$7 weekly.		

Corset occupation.	Experienced females of ordinary ability.	17 or over.	\$13 weekly.	To be deemed "experienced" after reaching 17 years of age and having one year's experience. For females of less than ordinary ability wage fixed by special license.	Mar. 1, 1920.
	Learner and apprentices.	(1) 17 or over. (2) Less than 17.	(1) \$10 weekly. (2) \$8 weekly.		

¹ The Men's Clothing Board (reconvened, fall of 1919) voted unanimously a minimum rate of \$15 to supersede the \$9 rate entered August 31, 1917.

APPENDIX No. 7.

RECENT MINIMUM WAGE DECREES IN EFFECT IN OTHER STATES.

STATE.	Kind of Work.	WORKERS.		Wage Rates.	Remarks.	Date Effective.
		Class.	Age.			
California.	Factories, mercantile establishments, hotels, and restaurants.	Experienced women and minors.	Any.	\$13.50 weekly.	-	Aug. 21, 1919.
		Apprentices.	Adults and minors.	\$10-\$13.50 weekly.	-	
	Fruit packing.	Experienced women.	Any.	\$13.50 weekly.	Experienced after 2 weeks.	
		Apprentices.	Any.	\$10 weekly.		
District of Columbia.	Mercantile establishments.	Experienced women.	Any.	\$16.50 weekly.	Adult experienced after 7 months.	Oct. 28, 1919.
		Inexperienced women.	Any.	\$12.50-\$14 weekly.	Minor experienced after 1 year.	
	Printing and publishing industry.	Experienced women.	-	\$15.50 weekly.	Experienced after 1 year.	Aug. 13, 1919.
		Apprentices.	-	\$8-\$12 weekly.	-	

Minnesota.	All in cities of 5,000 or over.	Experienced women and minors.	-	\$11 weekly.	36-48 hours weekly.	Aug. 4, 1919.
	All in cities of less than 5,000.	Experienced women and minors.	-	23 cents hourly. \$10.25 weekly. 22½ cents hourly.	Less than 36 hours. 36-48 hours weekly. Less than 36 hours.	
Oregon.	Office workers.	Experienced women.	-	\$60 monthly.	-	Oct. 14, 1919.
	Stores.	Apprentices.	-	\$9-\$12 weekly.		
		Experienced women.	-	\$13.20 weekly.		
		Apprentices.	-	\$9-\$12 weekly.		
	Factories, laundries, telephone and telegraph work, public housekeeping, domestic service.	Experienced women.	-	\$13.20 weekly.		
		Apprentices.	-	\$9-\$12 weekly.		
Washington.	Any.	Minors.	14-15. 15-16. 16-18.	\$6 weekly. \$7.20 weekly. \$8.50-\$10 weekly.		
	Any.	Adult women.	-	\$13.20 weekly.	During the war.	Nov. 10, 1918.
Wisconsin.	All.	Experienced women and minors.	Over 17.	22 cents hourly.	-	Aug. 1, 1919.
		Inexperienced women and minors.	-	18-20 cents hourly.		

RECENT MINIMUM WAGE DECREES IN EFFECT IN CANADIAN PROVINCES.

PROVINCE.	Kind of Work.	WORKERS.		Wage Rates.	Remarks.	Date Effective.
		Class.	Age.			
British Columbia.	Manufacturing industry, except canning.	Experienced women.	Adult.	\$14 weekly.	-	Sept. 1, 1919.
		Minors.	Minors.	\$10-\$14 weekly.	-	
	Personal service.	Experienced women.	Adult.	\$14.25 weekly.	-	Sept. 15, 1919.
		Apprentices.	Adults and minors.	\$10-\$14.25 weekly.	-	
	Theatre ushers.	Any.	-	\$10.80 weekly. \$14.25 weekly.	18-36 hours. 37-48 hours.	
	Telephone and telegraph.	Experienced women.	Adult.	\$15 weekly.	-	Oct. 2, 1919.
		Apprentices.	Adult and minors.	\$11-\$15 weekly.	-	
Saskatchewan.	Shops.	Experienced women.	-	\$15 weekly.	-	Oct. 1, 1919.
		Learners.	-	\$9.50-\$13 weekly.	-	
	Factories and laundries.	Experienced women.	-	\$14 weekly.	-	
		Learners.	-	\$9.50-\$12.50 weekly.	-	
	Mail order houses.	Experienced women.	-	\$14 weekly.	-	
		Learners.	-	\$8-\$12 weekly.	-	

The National War Labor Board favored in war industries a minimum wage of \$15 for a 48-hour week, and in some industries 35 cents an hour.

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